UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Analytical results and sample locality map of stream-sediment, heavy-mineral-concentrate, and rock samples from the Nopah Mountain (CDCA-150) and Resting Spring (CDCA-145) Wilderness Study Areas, Inyo County, California

By

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS.

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STUDIES RELATED TO WILDERNESS

Bureau of Land Management Wilderness Study Areas

The Federal Land Policy and Management Act (Public Law 94-579, October 21, 1976) requires the U.S. Geological Survey and the U.S. Bureau of Mines to conduct mineral surveys on certain areas to determine their mineral values, if any. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of a geochemical survey of the Nopah Mountain and Resting Spring Wilderness Study Areas, California Desert Conservation Area, Inyo County, California.

INTRODUCTION

In November and December 1982 we conducted a reconnaissance geochemical survey of the Nopah Mountain Wilderness Study Area (WSA), Inyo County, California.

The Nopah Mountain WSA comprises about 147 mi^2 (380 km^2) in the southwest corner of Inyo County, California. Access to the vicinity of the study area is provided by foot and 4-wheel-drive vehicle. Access to the Nopah Mountain WSA is provided by county road.

The study area occupies the northern portion of the Nopah Range and the southern portion of the Resting Spring Range. The Nopah Range and Resting Spring Range are divided into major structural units containing pre-Cenozoic rocks separated by thrust faults (Burchfiel and others, 1981). Several Cenozoic rock units are exposed in the study area, but only in the southern portion of the Resting Spring Range does a Cenozoic rock unit, a Tertiary-welded tuff, have a large area extent compared to pre-Cenozoic rocks. Burchfiel and others (1982) describe pre-Cenozoic rocks in the northern Resting Spring Range and northern Nopah Range.

The topographic relief in the study area is about 4626 ft (1410 m), with a maximum elevation of 6394 ft (1949 m). Both the Resting Spring Range and the Nopah Range are incised by steep-walled, intermittent streams and bound by coalescing alluvial fans. The climate is arid to semiarid.

In March 1982 we conducted a reconnaissance geochemical survey of the Resting Spring Wilderness Study Area (WSA), Inyo County, California.

The Resting Spring Wilderness Study Area comprises about 118 mi^2 (305 km^2) in the southwest corner of Inyo County, California. Access to the vicinity of the study area is provided by helicopter. Access to the Resting Spring WSA is provided by county road.

The study area occupies the northern portion of the Resting Spring Range, which is divided into four major structural units. Each unit contains pre-Cenozoic rocks separated by thrust faults (Burchfiel and others, 1981). A large number of Cenozoic rock units are exposed in the study area, but compared to the pre-Cenozoic rocks, are of small area extent. Pre-Cenozoic rock units are described in detail by Burchfiel and others (1982).

The topographic relief in the study area is about 3070 ft (936 m), with a maximum elevation of 5073 ft (1546 m). The Resting Spring Range is incised by steep-walled, intermittent streams and bound by coalescing alluvial fans. The climate is arid to semiarid. A more detailed discussion of the geology and geochemistry of both the Nopah Mountain Wilderness Study Area (WSA) and the Resting Spring WSA will be published elsewhere.

METHODS OF STUDY

Sample Collection

We collected samples at 112 sites (Plate 1) in the Nopah Mountain WSA. At nearly all of those sites, we collected both a stream-sediment sample and a heavy-mineral concentrate. In order to geochemically characterize known mineralized areas composite grab samples of rocks were collected from a prospect pit (NP445R), mine dump (NP444R), quartz vein (NP443R), and brecciated and iron-stained zone in carbonates (NP455R, NP440R, NP441R, NP442R). We analyzed 103 stream-sediment samples, 103 heavy-mineral-concentrate samples, and 9 rock samples, for a sampling density of about 1 sample per 1.4 mi^2 for the stream sediment and heavy-mineral concentrate. The drainage basins ranged from approximately .5 mi^2 to 3 mi^2 in area.

We collected samples at 78 sites (Plate 1) in the Resting Spring WSA. At nearly all of those sites, we collected both a stream-sediment sample and a heavy-mineral concentrate. One composite grab sample of rocks from a mine dump was also collected (RS450R). We analyzed 77 stream-sediment samples, 77 heavy-mineral-concentrate samples, and one rock sample, for a sampling density of about 1 sample per 1.5 mi^2 for the stream sediment and heavy-mineral concentrate. The drainage basins ranged from approximately 0.5 mi^2 to 3 mi^2 in area.

Stream-sediment samples

Analyses of the stream-sediment samples represent the chemistry of the rock material eroded from the drainage basin upstream from each sample site. Such information is useful in identifying those basins which contain concentrations of elements that may be related to mineral deposits.

The stream-sediment samples consisted of active alluvium collected primarily from first-order (unbranched) and second-order (below the junction of two first-order) streams as shown on USGS topographic maps (scale = 1:62,500). Each sample was composited from several localities within an area that may extend as much as 50 ft (15 m) from the site plotted on the map.

Heavy-mineral-concentrate samples

We panned heavy-mineral-concentrate samples from the same active alluvium as the stream-sediment samples. Each bulk sample was passed through a 2.0-mm (10-mesh) screen to remove the coarse material. The sediment passing through the screen was panned until most of the quartz, feldspar, organic material, and clay-sized material was removed. The sample was air dried.

Rock samples

We collected rock samples from prospect pits, mine dumps, outcrops or exposures in the vicinity of the plotted site location. Samples were collected from altered or mineralized rock.

Sample Preparation

Only the stream-sediment samples required extensive preparation. Rock samples were simply crushed and then pulverized with ceramic plates to minus 0.15 mm. Water samples required no preparation beyond that done in the process of collecting them.

We sieved the stream-sediment samples at the collection site through a 80-mesh screen and the minus 80-mesh material was retained. The samples were air dried and sieved to 80 mm using stainless steel sieves. The portion of the sediment passing through the sieve was saved for analysis.

After panning the sediment, we used bromoform to separate and remove the remaining quartz and feldspar from the heavy-mineral concentrate. The heavy minerals (specific gravity >2.8) were separated into three fractions using a large electromagnet (in this case a modified Frantz Isodynamic Separator). The most magnetic material (largely magnetite) was discarded. The second fraction (largely ferromagnesian silicates and iron oxides) was saved for analysis/archival storage. The third fraction (the least magnetic material including nonmagnetic ore minerals, zircon, sphene, etc.) was divided into two splits using a Jones splitter. One split was hand ground for spectrographic analysis; the other split was saved for mineralogical analysis.

The magnetic separates discussed are the same separates that would be produced by removing the magnetite with a hand magnet and then using a Frantz Isodynamic Separator set at a slope of 15° and a tilt of 10° with a current of 0.1 ampere to remove the ilmenite, and a current of 1.0 ampere to split the remainder of the sample into magnetic and nonmagnetic fractions.

Sample Analysis

Spectrographic method

We analyzed the stream-sediment, heavy-mineral-concentrate, and rock samples for 31 elements using a semiquantitative, direct-current arc emission spectrographic method (Grimes and Marranzino, 1968). Spectrographic results were obtained by visual comparison of spectra derived from the sample against spectra obtained from standards made from pure oxides and carbonates. Standard concentrations are geometrically spaced over any given order of magnitude of concentration as follows: 100, 50, 20, 10, and so forth. Samples whose concentrations are estimated to fall between those values are assigned values of 70, 30, 15, and so forth. The precision of the analytical method is approximately plus or minus one reporting unit at the 83 percent confidence level and plus or minus two reporting units at the 96 percent confidence level (Motooka and Grimes, 1976). Values determined for the major elements (iron, magnesium, calcium, and titanium) are given in weight percent; all others are given in parts per million (micrograms/gram) (table 1).

Chemical methods

Other methods of analysis used on samples from the Nopah Mountain Wilderness and Resting Spring WSA's are summarized in table 2.

Analytical results for stream-sediments are listed in table 3.

ROCK ANALYSIS STORAGE SYSTEM

Upon completion of all analytical work, the analytical results were entered into a computer-based file called RASS (Rock Analysis Storage System). This RASS file contains both descriptive geological information and analytical data. Any or all of this information may be retrieved and converted to a standard form (STATPAC) for computerized statistical analysis or publication (VanTrump and Miesch, 1976).

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TABLE 1.--Limits of determination for the spectrographic analysis of rocks and stream sediments, based on a 10-mg sample

[The spectrographic limits of determination for heavy-mineral-concentrate samples are two reporting units higher than the limits given for rocks and stream sediments. Spectrographic analyses by M. S. Erickson and D. E. Detra. Note: samples with (---) in tables indicate sample was not run for that particular element]

Elements	Lower determination limit	Upper determination limit
	Percent	
Iron (Fe)	0.05	20
Magnesium (Mg)	.02	10
Calcium (Ca)	.05	20
Titanium (Ti)	.002	1
	Parts per million	
Manganese (Mn)	10	5,000
Silver (Ag)	0.5	5,000
Arsenic (As)	200	10,000
Gold (Au)	10	500
Boron (B)	10	2,000
Barium (Ba)	20	5,000
Beryllium (Be)	1	1,000
Bismuth (Bi)	10	1,000
Cadmium (Cd)	20	500
Cobalt (Co)	5	2,000
Chromium (Cr)	10	5,000
Copper (Cu)	5	20,000
Lanthanum (La)	20	1,000
Molybdenum (Mo)	5	2,000
Niobium (Nb)	20	2,000
Nickel (Ni)	5	5,000
Lead (Pb)	10	20,000
Antimony (Sb)	100	10,000
Scandium (Sc)	5	100
Tin (Sn)	10	1,000
Strontium (Sr)	100	5,000
Vanadium (V)	10	10,000
Tungsten (W)	50	10,000
Yttrium (Y)	10	2,000
Zinc (Zn)	200	10,000
Zirconium (Zr)	10	1,000
Thorium (Th)	100	2,000

Table 2.--Chemical methods used

Sample type	Constituent determined	Analytical method	Determination limit[1] micrograms/ gram or ppm	Analyst	Reference
Rocks	Au	AA	0.05	S. Sherlock	Thompson and others, 1968.
	Zn	AA	5	T. A. Roemer	Modification of Viets, 1978
	Cd	AA	0.1	"	"
	Bi	AA	1	"	"
	Sb	AA	2	"	"
	As	AA	5 or 10	"	"
	Li	AA	5	S. Sherlock	Meier, 1980
	U	Fluorometric	.1	A. Meier	Centanni and others, 1956

[1]The determination limit is dependent upon sample weight. Given limits imply use of sample weight required by method. Higher limits of determination result from using less than required sample weight.

TABLE 3.--Spectrographic analyses for stream-sediment samples, Nopah Mountain Wilderness Area, Inyo County, California.

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
NP001SD	36 7 43	116 9 15	3.0	5.0	15	.30	700	N	N	N	50	500
NP101SD	36 0 41	116 6 20	3.0	3.0	15	.50	700	N	N	N	50	300
NP102SD	36 2 52	116 7 47	3.0	5.0	15	.30	1,000	N	N	N	70	300
NP103SD	36 4 20	116 8 15	3.0	7.0	15	.20	700	N	N	N	50	300
NP104SD	35 58 58	116 13 20	5.0	2.0	5	.50	1,000	N	N	N	100	700
NP105SD	35 57 35	116 11 57	3.0	2.0	7	.20	1,000	N	N	N	70	700
NP106SD	35 56 10	116 10 40	3.0	2.0	7	.50	1,000	N	N	N	70	500
NP107SD	35 53 35	116 10 15	3.0	1.5	3	.30	500	N	N	N	70	700
NP108SD	35 54 47	116 9 59	5.0	1.5	5	.30	1,000	N	N	N	100	700
NP109SD	35 56 15	116 10 3	5.0	3.0	7	.30	1,000	N	N	N	50	700
NP110SD	35 57 40	116 10 44	5.0	1.5	3	.50	700	N	N	N	50	700
NP111SD	35 59 18	116 12 46	5.0	2.0	7	.70	1,000	N	N	N	100	300
NP112SD	36 6 20	116 10 0	2.0	10.0	15	.15	300	N	N	N	50	150
NP113SD	36 8 52	116 8 54	7.0	2.0	2	1.00	700	N	N	N	100	700
NP114SD	36 6 52	116 7 59	2.0	3.0	10	.30	500	N	<200	N	50	500
NP115SD	36 5 32	116 6 45	1.5	7.0	10	.10	300	N	N	N	50	150
NP116SD	36 4 15	116 4 45	2.0	5.0	10	.15	500	N	N	N	70	200
NP117SD	36 3 40	116 4 15	2.0	5.0	10	.20	500	N	N	N	70	200
NP118SD	36 1 59	116 3 34	1.5	5.0	10	.20	300	N	N	N	50	150
NP119SD	36 0 28	116 3 15	2.0	3.0	10	.20	300	N	N	N	70	300
NP120SD	35 59 55	116 3 0	2.0	2.0	10	.15	500	N	N	N	100	300
NP121SD	35 58 21	116 2 7	2.0	2.0	15	.20	500	N	N	N	50	200
NP122SD	35 57 13	116 2 20	2.0	2.0	15	.15	500	N	<200	N	50	300
NP123SD	35 56 4	116 1 10	2.0	3.0	7	.30	700	N	N	N	20	700
NP124SD	35 55 10	116 3 15	2.0	2.0	10	.30	500	N	N	N	20	700
NP125SD	35 55 10	116 5 0	1.5	2.0	7	.30	700	N	N	N	20	700
NP126SD	35 58 53	116 5 10	3.0	2.0	7	.70	1,000	N	N	N	30	700
NP127SD	35 56 3	116 4 45	5.0	2.0	5	.70	700	N	N	N	50	1,000
NP128SD	35 58 47	116 5 15	5.0	1.5	5	.50	700	N	N	N	50	1,000
NP129SD	35 59 16	116 5 58	5.0	2.0	7	.50	700	N	N	N	50	700
NP150SD	36 7 30	116 7 30	1.0	2.0	10	.15	500	N	N	N	50	500
NP151SD	36 1 5	116 2 25	1.0	10.0	15	.15	300	N	N	N	70	200
NP152SD	35 59 7	116 0 50	1.5	1.5	7	.20	500	N	N	N	50	500
NP153SD	35 58 45	116 0 15	1.5	2.0	5	.20	700	N	N	N	50	500
NP154SD	35 57 45	116 2 15	1.5	1.5	7	.15	500	N	N	N	50	500
NP155SD	35 55 50	116 4 46	3.0	1.5	7	.50	500	N	N	N	50	500
NP156SD	35 56 14	116 4 50	2.0	1.5	5	.30	700	N	N	N	50	500
NP157SD	35 57 25	116 10 5	5.0	1.5	3	.70	500	N	N	N	30	500
NP158SD	35 57 20	116 2 20	1.5	1.0	5	.10	200	N	N	N	50	200
NP159SD	35 56 50	116 2 14	1.0	1.5	7	.15	200	N	N	N	50	300
NP202SD	36 1 25	116 0 5	1.0	10.0	15	.10	300	N	N	N	50	200
NP203SD	36 2 20	116 7 20	1.0	3.0	7	.15	200	N	N	N	70	300
NP204SD	36 5 0	116 8 50	2.0	10.0	15	.10	200	N	N	N	50	200
NP205SD	35 56 35	116 13 10	2.0	2.0	5	.15	500	N	N	N	70	500
NP206SD	35 57 2	116 11 25	2.0	1.5	3	.20	500	N	N	N	70	500

Table 3.-- NOPAH STREAM SEDIMENTS--continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sc-ppm s
NP001SD	1.0	N	N	N	50	20	N	N	N	15	100	N	N
NP101SD	1.0	N	N	N	30	7	30	N	N	7	30	N	N
NP102SD	1.0	N	N	N	20	10	20	N	N	10	70	N	N
NP103SD	<1.0	N	N	N	20	10	N	N	N	10	50	N	N
NP104SD	2.0	N	N	15	70	20	100	N	<20	20	50	N	10
NP105SD	1.5	N	N	7	50	20	50	N	N	15	70	N	7
NP106SD	1.5	N	N	10	70	15	30	N	N	20	30	N	10
NP107SD	1.5	N	N	7	50	15	70	N	<20	15	50	N	10
NP108SD	1.5	N	N	15	50	15	50	N	N	15	50	N	10
NP109SD	1.0	N	N	30	300	20	30	N	N	70	30	N	15
NP110SD	1.0	N	N	20	50	20	50	N	N	20	50	N	10
NP111SD	1.5	N	N	10	100	20	100	N	N	20	30	N	15
NP112SD	1.0	N	N	N	30	10	N	N	N	15	70	N	N
NP113SD	1.5	N	N	15	50	30	50	N	<20	20	50	N	10
NP114SD	1.5	N	N	10	50	15	50	N	N	15	70	N	5
NP115SD	1.0	N	N	N	20	10	30	N	N	7	70	N	<5
NP116SD	1.0	N	N	7	50	15	30	N	N	15	70	N	5
NP117SD	1.0	N	N	5	30	15	30	N	N	10	50	N	5
NP118SD	1.5	N	N	7	20	7	30	N	N	10	20	N	<5
NP119SD	1.0	N	N	5	20	10	50	N	N	10	20	N	5
NP120SD	2.0	N	N	5	30	15	30	N	N	15	20	N	5
NP121SD	1.5	N	N	5	50	15	30	N	N	15	50	N	5
NP122SD	1.0	N	N	5	30	7	30	N	N	10	50	N	5
NP123SD	2.0	N	N	7	50	15	50	N	N	15	30	N	7
NP124SD	1.5	N	N	5	50	15	50	N	N	10	50	N	5
NP125SD	1.5	N	N	5	50	15	70	N	N	10	30	N	7
NP126SD	1.5	N	N	15	70	20	50	N	N	15	20	N	10
NP127SD	1.5	N	N	15	50	20	70	N	20	20	30	N	10
NP128SD	1.5	N	N	15	50	15	50	N	N	10	30	N	10
NP129SD	1.5	N	N	10	50	15	50	N	N	10	50	N	7
NP150SD	1.5	N	N	N	50	10	30	N	N	10	20	N	5
NP151SD	1.0	N	N	N	20	10	N	N	N	7	15	N	N
NP152SD	1.5	N	N	<5	30	10	30	N	N	15	20	N	5
NP153SD	1.5	N	N	<5	50	15	30	N	<20	15	20	N	5
NP154SD	1.5	N	N	<5	30	15	30	N	N	10	20	N	<5
NP155SD	2.0	N	N	15	50	20	50	N	N	20	20	N	7
NP156SD	2.0	N	N	15	50	15	70	N	20	20	30	N	7
NP157SD	1.5	N	N	10	70	20	70	N	20	20	30	N	10
NP158SD	1.5	N	N	N	20	5	30	N	N	5	10	N	<5
NP159SD	1.5	N	N	N	30	10	20	N	N	7	10	N	5
NP202SD	1.0	N	N	N	30	10	N	N	N	5	10	N	N
NP203SD	1.5	N	N	N	30	10	20	N	N	10	15	N	5
NP204SD	1.0	N	N	N	30	7	N	N	N	7	70	N	N
NP205SD	2.0	N	N	7	50	10	50	N	N	10	20	N	7
NP206SD	2.0	N	N	5	50	15	50	N	N	10	20	N	5

Table 3.-- NOPAH STREAM SEDIMENTS--continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
NP001SD	N	200	50	N	10	N	70	N
NP101SD	N	300	50	N	15	N	300	N
NP102SD	N	200	50	N	10	N	200	N
NP103SD	N	200	30	N	<10	N	50	N
NP104SD	N	500	70	N	50	N	200	N
NP105SD	N	500	50	N	20	N	100	N
NP106SD	N	500	70	N	20	N	200	N
NP107SD	N	500	50	N	30	N	300	N
NP108SD	N	500	50	N	30	N	100	N
NP109SD	N	700	70	N	20	N	150	N
NP110SD	N	500	70	N	30	N	300	N
NP111SD	N	500	70	N	70	N	500	N
NP112SD	N	200	20	N	15	N	100	N
NP113SD	N	200	70	N	50	N	200	N
NP114SD	N	200	50	N	30	N	200	N
NP115SD	N	200	30	N	<10	N	50	N
NP116SD	N	300	50	N	20	N	70	N
NP117SD	N	200	50	N	20	N	200	N
NP118SD	N	200	50	N	15	N	150	N
NP119SD	N	300	50	N	15	N	100	N
NP120SD	N	300	30	N	20	N	100	N
NP121SD	N	300	50	N	20	N	100	N
NP122SD	N	300	30	N	20	N	50	N
NP123SD	N	500	70	N	20	N	100	N
NP124SD	N	500	50	N	20	N	100	N
NP125SD	N	300	70	N	20	N	100	N
NP126SD	N	300	70	N	20	N	100	N
NP127SD	N	300	100	N	30	N	150	N
NP128SD	N	200	70	N	20	N	70	N
NP129SD	N	300	70	N	20	N	150	N
NP150SD	N	200	50	N	15	N	70	N
NP151SD	N	150	30	N	10	N	200	N
NP152SD	N	200	50	N	15	N	50	N
NP153SD	N	300	50	N	15	N	50	N
NP154SD	N	300	50	N	15	N	200	N
NP155SD	N	300	70	N	20	N	150	N
NP156SD	N	300	70	N	30	N	150	N
NP157SD	N	500	100	N	20	N	200	N
NP158SD	N	200	30	N	10	N	70	N
NP159SD	N	300	50	N	15	N	50	N
NP202SD	N	200	50	N	<10	N	100	N
NP203SD	N	300	50	N	10	N	70	N
NP204SD	N	200	20	N	10	N	50	N
NP205SD	N	500	50	N	15	N	70	N
NP206SD	N	500	50	N	20	N	50	N

Table 3.-- NOPAH STREAM SEDIMENTS--continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
NP207SD	35 55 16	116 10 27	2.0	1.5	3	.15	700	N	N	N	50	500
NP209SD	35 55 5	116 10 0	5.0	2.0	5	.70	1,500	N	N	N	50	1,000
NP210SD	35 56 57	116 10 20	7.0	2.0	5	.70	1,000	N	N	N	50	1,000
NP211SD	35 58 23	116 11 30	3.0	2.0	5	.30	700	N	N	N	50	1,000
NP212SD	35 59 33	116 13 30	2.0	2.0	7	.20	700	N	N	N	50	1,000
NP221SD	36 5 30	116 9 40	2.0	10.0	20	.15	300	N	N	N	50	300
NP222SD	36 7 6	116 10 5	1.5	7.0	10	.15	500	N	N	N	50	200
NP223SD	36 8 23	116 8 8	2.0	3.0	5	.20	500	N	N	N	100	300
NP224SD	36 6 35	116 7 44	3.0	2.0	10	.20	500	N	N	N	70	500
NP225SD	36 4 31	116 5 5	2.0	3.0	7	.20	500	N	N	N	100	300
NP226SD	36 3 4	116 3 53	2.0	10.0	10	.20	300	N	N	N	50	300
NP227SD	36 1 43	116 2 55	1.0	7.0	7	.15	200	N	N	N	70	200
NP228SD	35 59 35	116 1 15	1.5	2.0	7	.20	500	N	N	N	70	500
NP229SD	35 59 10	116 2 15	2.0	1.5	7	.20	500	N	N	N	100	500
NP230SD	35 58 5	116 2 15	1.5	2.0	10	.20	500	N	N	N	50	500
NP231SD	35 56 35	116 1 58	2.0	2.0	7	.50	700	N	N	N	50	500
NP232SD	35 54 52	116 1 28	2.0	2.0	7	.50	500	N	N	N	50	500
NP233SD	35 55 0	116 3 10	2.0	1.5	5	.30	500	N	N	N	30	500
NP234SD	35 54 55	116 5 5	3.0	2.0	7	.50	700	N	N	N	50	500
NP235SD	35 56 40	116 5 20	3.0	1.5	3	.50	500	N	N	N	100	500
NP236SD	35 58 10	116 5 50	3.0	1.5	2	.50	500	N	N	N	70	500
NP260SD	36 7 32	116 9 47	2.0	5.0	7	.30	500	N	N	N	100	500
NP261SD	36 8 5	116 7 55	1.0	3.0	5	.20	300	N	N	N	50	500
NP262SD	35 58 33	115 59 45	1.5	2.0	5	.50	500	N	N	N	50	500
NP263SD	35 53 40	116 4 18	5.0	2.0	10	.50	1,000	N	N	N	50	500
NP405SD	36 2 0	116 6 55	3.0	10.0	20	.30	1,000	N	N	N	50	500
NP406SD	36 3 50	116 7 40	3.0	10.0	20	.15	1,000	N	N	N	50	300
NP407SD	35 58 10	116 12 41	7.0	2.0	7	.50	1,500	N	N	N	100	700
NP408SD	35 56 40	116 10 59	5.0	2.0	7	.30	700	N	N	N	30	1,000
NP409SD	35 54 43	116 10 20	5.0	2.0	5	.50	1,000	N	N	N	50	1,000
NP410SD	35 54 1	116 9 56	5.0	1.5	5	.50	1,000	N	N	N	50	1,000
NP411SD	35 55 47	116 9 58	5.0	2.0	7	.50	1,000	N	N	N	50	1,000
NP412SD	35 57 29	116 10 28	5.0	2.0	5	.50	1,000	N	N	N	30	1,000
NP413SD	35 58 55	116 12 5	7.0	2.0	7	1.00	1,000	N	N	N	70	1,000
NP414SD	36 6 0	116 9 50	3.0	3.0	10	.20	500	N	N	N	50	500
NP415SD	36 8 6	116 8 56	10.0	1.5	3	1.00	1,000	N	N	N	50	700
NP416SD	36 7 45	116 7 40	5.0	5.0	10	.30	1,000	N	N	N	50	500
NP417SD	36 6 30	116 7 5	3.0	2.0	10	.20	700	N	N	N	50	500
NP418SD	36 4 50	116 5 58	2.0	7.0	10	.20	700	N	N	N	50	300
NP419SD	36 4 48	116 5 52	3.0	7.0	10	.15	500	N	N	N	50	500
NP420SD	36 4 45	116 5 47	3.0	10.0	15	.10	500	N	N	N	50	500
NP421SD	36 2 30	116 3 30	2.0	>10.0	15	.10	500	N	N	N	30	300
NP422SD	36 0 29	116 2 10	3.0	5.0	7	.20	500	N	N	N	30	500
NP423SD	35 58 45	116 1 3	5.0	2.0	5	.50	700	N	N	N	50	500
NP424SD	35 58 20	116 0 2	3.0	2.0	5	.50	1,000	N	N	N	50	700

Table 3.-- NOPAH STREAM SEDIMENTS--continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sc-ppm s
NP207SD	1.5	N	N	7	50	15	30	N	N	10	20	N	5
NP209SD	2.0	N	N	15	50	20	100	N	<20	15	50	N	10
NP210SD	1.5	N	N	15	300	20	50	N	N	15	30	N	10
NP211SD	1.5	N	N	10	70	20	50	N	N	20	50	N	7
NP212SD	1.0	N	N	<5	20	10	30	N	N	10	30	N	5
NP221SD	<1.0	N	N	<5	10	15	N	N	N	10	150	N	<5
NP222SD	1.0	N	N	N	20	15	20	N	N	10	30	N	5
NP223SD	2.0	N	N	<5	50	20	50	N	N	15	50	N	7
NP224SD	1.0	N	N	5	50	20	50	N	N	15	50	N	5
NP225SD	2.0	N	N	<5	50	15	70	N	N	10	30	N	5
NP226SD	1.0	N	N	N	20	10	20	N	N	10	20	N	<5
NP227SD	2.0	N	N	N	20	10	N	N	N	10	15	N	<5
NP228SD	1.5	N	N	5	30	15	20	N	N	10	20	N	5
NP229SD	2.0	N	N	5	30	15	50	N	N	15	20	N	5
NP230SD	2.0	N	N	5	30	15	50	N	N	10	20	N	5
NP231SD	2.0	N	N	10	50	15	50	N	N	15	20	N	5
NP232SD	2.0	N	N	7	50	20	30	N	N	15	20	N	5
NP233SD	2.0	N	N	5	30	10	70	N	N	10	20	N	5
NP234SD	2.0	N	N	7	50	20	50	N	20	15	30	N	7
NP235SD	2.0	N	N	10	50	20	50	N	N	15	30	N	7
NP236SD	2.0	N	N	10	50	15	70	N	N	10	20	N	7
NP260SD	1.5	N	N	7	50	15	70	N	<20	15	70	N	7
NP261SD	1.5	N	N	5	50	15	70	N	N	15	50	N	5
NP262SD	2.0	N	N	5	50	15	50	N	N	15	30	N	5
NP263SD	1.0	N	N	10	50	20	50	N	N	7	20	N	7
NP405SD	1.0	N	N	10	50	10	30	N	N	7	20	N	5
NP406SD	1.0	N	N	15	50	10	20	N	N	10	20	N	5
NP407SD	1.5	N	N	20	70	30	50	N	N	15	30	N	10
NP408SD	1.5	N	N	5	50	15	20	N	N	15	30	N	7
NP409SD	1.5	N	N	7	50	20	50	N	N	10	50	N	10
NP410SD	1.5	N	N	5	30	20	50	N	N	10	30	N	7
NP411SD	1.5	N	N	15	100	20	50	N	N	20	30	N	10
NP412SD	1.0	N	N	15	100	20	30	N	N	20	30	N	10
NP413SD	1.5	N	N	15	70	20	50	N	<20	30	30	N	10
NP414SD	1.5	N	N	5	30	10	50	N	N	10	50	N	5
NP415SD	1.5	N	N	15	70	20	50	N	N	15	20	N	10
NP416SD	1.0	N	N	5	50	15	70	N	N	15	50	N	5
NP417SD	1.0	N	N	5	50	15	50	N	N	10	30	N	5
NP418SD	1.0	N	N	<5	30	10	20	N	N	7	50	N	<5
NP419SD	1.0	N	N	5	30	10	N	N	N	10	30	N	<5
NP420SD	1.0	N	N	5	50	10	N	N	N	7	50	N	5
NP421SD	1.0	N	N	N	20	5	30	N	N	5	20	N	<5
NP422SD	1.5	N	N	5	50	10	70	N	N	10	20	N	5
NP423SD	2.0	N	N	5	50	15	50	N	N	15	30	N	10
NP424SD	2.0	N	N	7	30	15	20	N	N	10	30	N	7

Table 3.-- NOPAH STREAM SEDIMENTS--continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
NP207SD	N	300	50	N	20	N	200	N
NP209SD	N	500	100	N	30	N	200	N
NP210SD	N	500	100	N	20	N	300	<100
NP211SD	N	500	50	N	15	N	100	N
NP212SD	N	500	20	N	15	N	50	N
NP221SD	N	200	30	N	10	N	100	N
NP222SD	N	300	30	N	15	N	100	N
NP223SD	N	300	50	N	20	N	150	N
NP224SD	N	300	50	N	15	N	100	N
NP225SD	N	300	50	N	20	N	150	N
NP226SD	N	200	30	N	10	N	100	N
NP227SD	N	200	30	N	10	N	100	N
NP228SD	N	300	50	N	15	N	30	N
NP229SD	N	300	50	N	15	N	50	N
NP230SD	N	300	50	N	15	N	100	N
NP231SD	N	300	50	N	15	N	150	N
NP232SD	N	500	50	N	15	N	200	N
NP233SD	N	300	50	N	20	N	200	N
NP234SD	N	500	50	N	20	N	200	N
NP235SD	N	500	70	N	20	N	100	N
NP236SD	N	300	50	N	20	N	300	N
NP260SD	N	300	50	N	70	N	100	N
NP261SD	N	300	30	N	15	N	150	N
NP262SD	N	300	50	N	30	N	100	N
NP263SD	N	300	100	N	20	N	200	N
NP405SD	N	300	50	N	15	N	200	N
NP406SD	N	200	30	N	15	N	150	N
NP407SD	N	500	150	N	30	N	300	N
NP408SD	N	500	50	N	15	N	70	N
NP409SD	N	500	70	N	20	N	200	N
NP410SD	N	300	70	N	20	N	500	N
NP411SD	N	500	100	N	50	N	200	N
NP412SD	N	700	70	N	20	N	100	N
NP413SD	N	500	100	N	20	N	200	N
NP414SD	N	200	50	N	20	N	100	N
NP415SD	N	200	100	N	20	N	200	N
NP416SD	N	300	70	N	20	N	100	N
NP417SD	N	200	50	N	15	N	50	N
NP418SD	N	200	30	N	15	N	200	N
NP419SD	N	200	30	N	10	N	100	N
NP420SD	N	200	20	N	15	N	100	N
NP421SD	N	200	20	N	10	N	100	N
NP422SD	N	200	50	N	15	N	150	N
NP423SD	N	300	50	N	30	N	200	N
NP424SD	N	300	50	N	20	N	150	N

Table 3.-- NOPAH STREAM SEDIMENTS--continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
NP425SD	35 56 13	116 1 17	5.0	3.0	10	.30	1,500	N	N	N	30	500
NP426SD	35 55 20	116 2 38	5.0	2.0	7	.50	1,000	N	N	N	50	500
NP427SD	35 54 15	116 3 10	5.0	2.0	7	.50	1,000	N	N	N	50	500
NP428SD	35 54 0	116 5 15	5.0	2.0	10	.30	1,000	N	N	N	50	500
NP429SD	35 56 55	116 6 1	7.0	2.0	7	.50	1,000	N	N	N	70	500
NP430SD	35 59 10	116 5 25	7.0	2.0	10	.70	1,000	N	N	N	70	1,000
NP450SD	36 5 44	116 6 58	5.0	2.0	10	.20	700	N	N	N	50	500
NP451SD	36 5 40	116 6 22	1.5	10.0	15	.05	500	N	N	N	50	200
NP452SD	36 0 5	116 1 35	5.0	5.0	7	.30	500	N	N	N	50	300
NP453SD	36 0 10	116 1 50	3.0	5.0	20	.20	300	N	N	N	50	200
NP454SD	35 59 45	116 1 45	5.0	2.0	10	.30	700	N	N	N	50	700
NP456SD	35 56 13	116 5 0	7.0	2.0	10	.50	1,500	N	N	N	70	1,000
NP457SD	35 57 45	116 6 10	5.0	1.5	5	.30	700	N	N	N	50	1,000

Table 3.-- NOPAH STREAM SEDIMENTS--continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sc-ppm s
NP425SD	1.5	N	N	7	50	15	30	N	N	10	50	N	7
NP426SD	2.0	N	N	15	50	20	100	N	N	15	50	N	10
NP427SD	1.5	N	N	5	50	15	100	N	N	15	30	N	7
NP428SD	1.5	N	N	5	30	15	50	N	N	10	30	N	7
NP429SD	2.0	N	N	10	50	20	50	N	N	15	30	N	7
NP430SD	1.5	N	N	10	50	10	50	N	N	15	20	N	10
NP450SD	1.5	N	N	<5	30	15	30	N	N	10	50	N	5
NP451SD	1.0	N	N	N	10	10	N	N	N	<5	50	N	<5
NP452SD	1.5	N	N	<5	50	15	50	N	N	10	50	N	5
NP453SD	1.0	N	N	<5	20	10	30	N	N	7	30	N	5
NP454SD	1.0	N	N	10	50	20	100	10	N	10	50	N	10
NP456SD	1.0	N	N	15	70	30	100	N	<20	15	70	N	15
NP457SD	1.0	N	N	10	50	20	70	5	N	10	50	N	7

Table 3.-- NOPAH STREAM SEDIMENTS--continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
NP425SD	N	300	50	N	20	N	200	N
NP426SD	N	300	50	N	20	N	150	N
NP427SD	N	500	100	N	30	N	300	N
NP428SD	N	500	50	N	20	N	200	N
NP429SD	N	200	70	N	20	N	200	N
NP430SD	N	200	100	N	20	N	200	N
NP450SD	N	300	70	N	10	N	100	N
NP451SD	N	200	10	N	15	N	50	N
NP452SD	N	300	50	N	30	N	100	N
NP453SD	N	200	30	N	15	N	100	N
NP454SD	N	500	70	N	20	N	150	N
NP456SD	N	300	70	N	30	N	300	N
NP457SD	N	500	50	N	20	N	200	N

TABLE 4.--Spectrographic analyses for panned-concentrate samples, Nopah Mountain Wilderness Area, Inyo County, California.

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-pct.	Mg-pct.	Ca-pct.	Ti-pct.	Mn-ppm	Ag-ppm	As-ppm	Au-ppm	B-ppm	Ba-ppm
			%	%	%	%	%	%	%	%	%	%
NP001C	36 7 43	116 9 15	1.5	1.00	15.0	>2.0	300	15.0	<500	N	50	5,000
NP101C	36 0 41	116 6 20	2.0	1.50	5.0	>2.0	500	N	N	N	100	3,000
NP102C	36 2 52	116 7 47	1.5	1.50	7.0	>2.0	500	N	N	N	30	300
NP103C	36 4 20	116 8 15	2.0	2.00	7.0	>2.0	500	N	N	N	70	300
NP104C	35 58 58	116 13 20	1.5	1.00	3.0	>2.0	500	N	N	N	50	>10,000
NP105C	35 57 35	116 11 57	1.5	1.00	5.0	>2.0	300	N	N	N	50	>10,000
NP106C	35 56 10	116 10 40	2.0	2.00	3.0	>2.0	1,000	N	N	N	70	>10,000
NP107C	35 53 35	116 10 15	1.5	1.00	2.0	>2.0	500	N	N	N	100	>10,000
NP108C	35 54 47	116 9 59	1.5	1.00	3.0	>2.0	500	N	N	N	50	500
NP109C	35 56 15	116 10 3	2.0	2.00	5.0	>2.0	1,000	N	N	N	70	10,000
NP110C	35 57 40	116 10 44	1.5	1.50	5.0	>2.0	700	N	N	N	50	300
NP111C	35 59 18	116 12 46	2.0	1.00	3.0	>2.0	500	N	N	N	50	>10,000
NP112C	36 6 20	116 10 0	2.0	1.50	5.0	>2.0	500	10.0	1,000	N	70	>10,000
NP113C	36 8 52	116 8 54	1.0	.50	2.0	>2.0	150	N	N	N	70	>10,000
NP114C	36 6 52	116 7 59	1.5	2.00	10.0	>2.0	500	1.0	N	N	50	500
NP115C	36 5 32	116 6 45	5.0	2.00	5.0	>2.0	1,000	N	N	N	100	200
NP116C	36 4 15	116 4 45	2.0	2.00	5.0	>2.0	500	N	N	N	50	70
NP117C	36 3 40	116 4 15	1.0	1.50	3.0	>2.0	200	N	N	N	30	70
NP118C	36 1 59	116 3 34	3.0	1.00	5.0	>2.0	500	N	N	N	50	1,000
NP119C	36 0 28	116 3 15	1.5	1.00	3.0	>2.0	300	N	N	N	100	>10,000
NP120C	35 59 55	116 3 0	1.5	1.00	5.0	>2.0	500	N	N	N	100	>10,000
NP121C	35 58 21	116 2 7	3.0	1.50	7.0	>2.0	700	N	N	N	70	300
NP122C	35 57 13	116 2 20	1.5	1.00	20.0	2.0	200	10.0	N	N	100	300
NP123C	35 56 4	116 1 10	1.0	1.00	5.0	>2.0	300	N	N	N	50	200
NP124C	35 55 10	116 3 15	1.5	1.00	5.0	>2.0	500	3.0	N	N	30	7,000
NP125C	35 55 10	116 5 0	1.0	1.00	7.0	>2.0	700	N	N	N	50	10,000
NP126C	35 58 53	116 5 10	1.0	.50	2.0	>2.0	150	N	N	N	50	>10,000
NP127C	35 56 3	116 4 45	2.0	.70	7.0	>2.0	500	N	N	N	70	>10,000
NP128C	35 58 47	116 5 15	1.5	.50	5.0	>2.0	500	N	N	N	100	>10,000
NP129C	35 59 16	116 5 58	1.5	1.00	5.0	>2.0	300	N	<500	N	70	>10,000
NP150C	36 7 30	116 7 30	2.0	.70	10.0	>2.0	500	N	N	N	50	200
NP151C	36 1 5	116 2 25	2.0	1.00	7.0	>2.0	500	N	N	N	100	50
NP152C	35 59 7	116 0 50	2.0	1.50	5.0	>2.0	500	N	N	N	50	50
NP153C	35 58 45	116 0 15	2.0	1.50	5.0	>2.0	700	N	N	N	50	150
NP154C	35 57 45	116 2 15	3.0	1.50	5.0	>2.0	700	N	N	N	50	50
NP155C	35 55 50	116 4 46	2.0	.50	5.0	>2.0	500	N	N	N	50	10,000
NP156C	35 56 14	116 4 50	1.5	1.00	7.0	>2.0	500	N	N	N	100	>10,000
NP157C	35 57 25	116 10 5	1.0	.50	2.0	.5	150	N	N	N	20	700
NP158C	35 57 20	116 2 20	1.0	1.00	10.0	>2.0	200	N	N	N	30	100
NP159C	35 56 50	116 2 14	1.0	1.00	5.0	>2.0	500	N	N	N	30	300
NP202C	36 1 25	116 6 5	1.5	1.00	5.0	>2.0	500	N	N	N	30	50
NP203C	36 2 20	116 7 20	1.0	1.50	3.0	>2.0	300	N	N	N	30	50
NP204C	36 5 0	116 8 50	1.0	1.00	3.0	>2.0	500	3.0	500	N	20	50
NP205C	35 58 35	116 13 10	1.5	1.00	5.0	>2.0	500	N	N	N	30	>10,000
NP206C	35 57 2	116 11 25	1.0	1.00	5.0	>2.0	200	N	N	N	30	>10,000

Table 4.-- NOPAH CONCENTRATES--continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sc-ppm s
NP001C	2	N	N	N	150	200	500	N	50	15	20,000	N	50
NP101C	3	N	N	N	70	200	300	N	70	<10	200	N	150
NP102C	2	N	N	N	20	10	200	N	50	<10	50	N	70
NP103C	2	N	N	N	70	10	300	N	70	30	50	N	100
NP104C	2	N	N	N	30	10	200	N	70	<10	70	N	50
NP105C	3	N	N	N	<20	<10	200	N	70	<10	<20	N	50
NP106C	2	N	N	N	150	<10	300	N	50	<10	50	N	150
NP107C	3	N	N	N	100	<10	200	N	70	<10	30	N	200
NP108C	2	N	N	N	50	<10	300	N	50	<10	100	N	150
NP109C	2	N	N	N	500	<10	200	N	70	20	30	N	50
NP110C	3	N	N	N	100	<10	300	N	70	<10	30	N	200
NP111C	3	N	N	N	50	<10	300	N	<50	<10	30	N	150
NP112C	3	N	N	N	50	20	300	N	70	<10	7,000	N	150
NP113C	3	N	N	N	20	<10	100	N	<50	<10	50	N	200
NP114C	5	N	N	N	70	<10	300	N	70	<10	150	N	100
NP115C	2	N	N	N	100	30	500	N	50	20	200	N	100
NP116C	3	N	N	N	30	<10	200	N	50	<10	200	N	100
NP117C	2	N	N	N	<20	<10	100	N	70	<10	30	N	100
NP118C	2	N	N	15	50	<10	200	<10	70	<10	20	N	100
NP119C	3	N	N	<10	50	<10	200	N	70	<10	70	N	200
NP120C	50	N	N	<10	50	<10	500	N	100	<10	500	N	100
NP121C	2	N	N	<10	70	<10	200	<10	50	<10	50	N	50
NP122C	<2	N	N	N	70	<10	100	N	150	N	70	N	--
NP123C	2	N	N	N	50	<10	200	N	70	<10	30	N	150
NP124C	2	N	N	N	50	<10	200	<10	100	<10	30,000	N	150
NP125C	5	N	N	N	50	10	300	N	50	<10	150	N	100
NP126C	3	N	N	N	70	<10	70	N	70	<10	100	N	150
NP127C	5	N	N	N	30	50	300	N	50	<10	300	N	100
NP128C	2	N	N	N	50	10	200	N	50	<10	50	N	200
NP129C	2	N	N	N	50	<10	300	N	70	<10	1,500	N	100
NP150C	2	N	N	N	70	<10	300	N	70	20	50	N	100
NP151C	2	N	N	N	50	<10	200	N	70	<10	150	N	100
NP152C	3	N	N	N	50	<10	200	N	70	<10	30	N	150
NP153C	2	N	N	N	50	<10	300	N	70	<10	200	N	150
NP154C	5	N	N	N	50	<10	300	<10	70	<10	100	N	200
NP155C	2	N	N	30	50	30	500	N	<50	20	70	N	200
NP156C	3	N	N	N	50	<10	200	N	100	<10	50	N	70
NP157C	<2	N	N	N	20	N	50	N	N	<10	<20	N	30
NP158C	<2	N	N	N	20	<10	70	N	50	<10	50	N	70
NP159C	2	N	N	N	30	<10	200	N	100	<10	300	N	150
NP202C	2	N	N	N	50	<10	300	N	50	<10	50	N	150
NP203C	2	N	N	N	30	<10	300	N	70	<10	30	N	200
NP204C	2	N	N	N	30	<10	200	N	50	<10	2,000	N	200
NP205C	<2	N	N	N	50	20	300	N	70	<10	50	N	100
NP206C	<2	N	N	N	30	<10	200	N	100	<10	30	N	100

Table 4.-- NOPAH CONCENTRATES--continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
NP001C	70	700	700	N	1,000	2,000	>2,000	200
NP101C	30	<200	200	N	700	3,000	>2,000	200
NP102C	<20	200	100	N	500	N	>2,000	<200
NP103C	30	<200	150	N	700	N	>2,000	200
NP104C	N	1,500	100	N	500	N	>2,000	<200
NP105C	N	1,000	100	N	500	N	>2,000	N
NP106C	30	500	150	N	700	N	>2,000	<200
NP107C	100	700	150	N	1,000	N	>2,000	<200
NP108C	50	200	100	N	700	N	>2,000	200
NP109C	20	500	100	N	500	N	>2,000	200
NP110C	30	<200	150	N	1,000	N	>2,000	<200
NP111C	30	2,000	100	N	700	N	>2,000	<200
NP112C	20	300	200	N	700	3,000	>2,000	<200
NP113C	N	200	100	N	1,500	N	>2,000	<200
NP114C	50	300	150	N	700	N	>2,000	<200
NP115C	70	200	200	N	700	N	>2,000	<200
NP116C	20	200	100	N	500	N	>2,000	N
NP117C	70	<200	100	N	500	N	>2,000	<200
NP118C	50	200	100	N	700	N	>2,000	<200
NP119C	20	300	100	N	700	N	>2,000	<200
NP120C	N	500	150	N	500	N	>2,000	<200
NP121C	20	200	100	N	500	N	>2,000	<200
NP122C	N	200	70	100	200	N	>2,000	N
NP123C	20	<200	200	N	700	N	>2,000	300
NP124C	70	300	200	N	500	N	>2,000	<200
NP125C	30	200	150	N	500	N	>2,000	N
NP126C	N	500	100	N	500	N	>2,000	N
NP127C	30	700	100	N	700	N	>2,000	<200
NP128C	50	500	100	N	700	N	>2,000	<200
NP129C	30	300	200	N	500	2,000	>2,000	<200
NP150C	N	500	100	N	500	N	>2,000	N
NP151C	N	500	100	N	500	500	>2,000	N
NP152C	30	<200	100	N	700	N	>2,000	200
NP153C	30	<200	200	N	700	N	>2,000	<200
NP154C	30	<200	100	N	700	N	>2,000	<200
NP155C	N	1,000	70	N	1,000	N	>2,000	N
NP156C	N	500	100	N	500	N	>2,000	<200
NP157C	30	700	<20	N	100	<500	>2,000	N
NP158C	N	200	70	N	200	<500	>2,000	<200
NP159C	100	<200	150	N	700	N	>2,000	200
NP202C	20	<200	100	N	700	N	>2,000	<200
NP203C	<20	<200	100	N	700	N	>2,000	200
NP204C	50	200	150	N	700	1,000	>2,000	<200
NP205C	150	500	100	N	700	N	>2,000	<200
NP206C	20	300	100	N	500	N	>2,000	N

Table 4.-- NOPAH CONCENTRATES--continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
NP207C	35 55 16	116 10 27	.7	.50	3.0	>2.0	300	N	N	N	30	10,000
NP209C	35 55 5	116 10 0	2.0	.70	2.0	>2.0	500	N	N	N	50	>10,000
NP210C	35 56 57	116 10 20	2.0	1.00	3.0	>2.0	500	N	N	N	50	300
NP211C	35 58 23	116 11 30	2.0	.70	1.0	2.0	500	N	N	N	30	100
NP212C	35 59 33	116 13 30	2.0	2.00	5.0	>2.0	500	N	N	N	100	700
NP221C	36 5 30	116 9 40	2.0	1.50	5.0	>2.0	700	20.0	700	N	70	1,000
NP222C	36 7 6	116 10 5	3.0	1.50	5.0	>2.0	700	5.0	N	N	200	10,000
NP223C	36 8 23	116 8 8	1.5	.70	3.0	>2.0	300	N	N	N	100	>10,000
NP224C	36 6 35	116 7 44	2.0	1.00	7.0	>2.0	500	N	N	N	100	2,000
NP225C	36 4 31	116 5 5	3.0	1.50	5.0	>2.0	500	N	N	N	70	50
NP226C	36 3 4	116 3 53	3.0	3.00	7.0	>2.0	300	N	N	N	70	<50
NP227C	36 1 43	116 2 55	2.0	2.00	5.0	>2.0	500	N	N	N	100	50
NP228C	35 59 35	116 1 15	2.0	1.50	5.0	>2.0	500	N	N	N	100	>10,000
NP229C	35 59 10	116 2 15	5.0	1.50	5.0	>2.0	1,000	N	N	N	200	1,500
NP230C	35 58 5	116 2 15	3.0	1.00	5.0	>2.0	1,000	1.5	N	N	70	<50
NP231C	35 56 35	116 1 58	3.0	1.00	3.0	>2.0	500	N	2,000	N	50	50
NP232C	35 54 52	116 1 28	2.0	2.00	5.0	>2.0	500	N	<500	N	30	2,000
NP233C	35 55 0	116 3 10	2.0	2.00	5.0	>2.0	500	N	N	N	100	1,500
NP234C	35 54 55	116 5 5	3.0	2.00	5.0	>2.0	700	N	N	N	100	>10,000
NP235C	35 56 40	116 5 20	3.0	.70	5.0	>2.0	700	N	N	N	200	>10,000
NP236C	35 58 10	116 5 50	2.0	.30	1.5	>2.0	200	N	N	N	100	>10,000
NP260C	36 7 32	116 9 47	2.0	1.00	5.0	>2.0	500	10.0	1,500	N	70	1,000
NP261C	36 8 5	116 7 55	3.0	1.00	5.0	>2.0	700	N	N	N	100	2,000
NP262C	35 58 33	115 59 45	.0	1.50	5.0	>2.0	500	N	N	N	70	50
NP263C	35 53 40	116 4 18	2.0	1.00	5.0	>2.0	700	N	N	N	100	>10,000
NP405C	36 2 0	116 6 55	1.5	1.00	3.0	>2.0	500	N	N	N	100	100
NP406C	36 3 50	116 7 40	3.0	1.00	5.0	>2.0	700	N	N	N	70	700
NP407C	35 58 10	116 12 41	2.0	1.00	3.0	>2.0	700	N	N	N	70	>10,000
NP409C	35 54 43	116 10 20	1.0	.70	2.0	>2.0	500	N	N	N	150	>10,000
NP410C	35 54 1	116 9 56	2.0	.70	3.0	>2.0	500	N	N	N	100	2,000
NP411C	35 55 47	116 9 58	2.0	1.00	5.0	>2.0	700	N	N	N	100	150
NP412C	35 57 29	116 10 28	1.0	1.00	3.0	>2.0	500	N	N	N	70	100
NP413C	35 58 55	116 12 5	1.5	1.00	5.0	>2.0	500	N	N	N	100	7,000
NP414C	36 6 0	116 9 50	1.0	1.00	5.0	>2.0	200	5.0	500	N	50	>10,000
NP415C	36 8 6	116 8 56	1.5	.15	2.0	>2.0	150	N	N	N	150	>10,000
NP416C	36 7 45	116 7 40	3.0	1.00	5.0	>2.0	1,000	<1.0	2,000	N	50	7,000
NP417C	36 6 30	116 7 5	2.0	.70	10.0	>2.0	700	N	N	N	70	2,000
NP418C	36 4 50	116 5 58	2.0	1.50	5.0	>2.0	700	N	N	N	100	500
NP419C	36 4 48	116 5 52	1.5	1.50	5.0	>2.0	500	N	N	N	50	300
NP421C	36 2 30	116 3 30	2.0	3.00	7.0	>2.0	700	N	N	N	70	200
NP422C	36 0 29	116 2 10	1.5	.70	3.0	>2.0	300	N	N	N	150	2,000
NP423C	35 58 45	116 1 3	1.0	1.00	5.0	>2.0	500	N	N	N	50	200
NP424C	35 58 20	116 0 2	1.0	.70	5.0	>2.0	300	N	N	N	50	300
NP425C	35 56 13	116 1 17	1.0	1.00	5.0	>2.0	300	N	N	N	100	<50
NP426C	35 55 20	116 2 38	1.0	.50	3.0	>2.0	300	N	N	N	30	10,000

Table 4.-- NOPAH CONCENTRATES--continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sc-ppm s
NP207C	<2	N	N	N	20	<10	200	N	100	<10	50	N	100
NP209C	<2	N	N	N	20	<10	200	N	100	<10	30	N	150
NP210C	5	N	N	N	50	<10	200	N	70	<10	200	N	200
NP211C	2	N	N	N	50	<10	70	N	50	<10	N	N	100
NP212C	3	N	N	N	70	N	300	N	100	<10	50	N	100
NP221C	<2	N	N	N	50	100	200	N	50	<10	30,000	N	150
NP222C	<2	N	N	N	100	70	1,000	10	100	20	2,000	N	100
NP223C	2	N	N	N	50	10	200	N	70	<10	1,000	N	100
NP224C	<2	N	N	N	100	10	300	N	70	<10	150	N	150
NP225C	3	N	N	N	100	<10	300	N	<50	<10	200	N	200
NP226C	2	N	N	N	50	<10	200	N	<50	<10	700	N	100
NP227C	<2	N	N	N	50	<10	200	N	<50	<10	100	N	200
NP228C	3	N	N	N	70	<10	200	N	50	<10	150	N	200
NP229C	2	N	N	10	100	<10	1,500	N	70	<10	300	N	>200
NP230C	2	N	N	N	100	<10	1,000	N	<50	<10	150	N	150
NP231C	<2	N	N	N	70	<10	200	N	<50	<10	2,000	N	200
NP232C	<2	N	N	N	100	<10	300	10	70	<10	1,500	N	200
NP233C	10	N	N	N	100	<10	500	<10	50	<10	100	N	200
NP234C	20	N	N	N	100	<10	1,000	10	50	<10	200	N	200
NP235C	5	N	N	<10	100	10	300	N	N	<10	100	N	200
NP236C	5	N	N	N	100	<10	200	N	<50	<10	50	N	200
NP260C	2	N	N	N	100	200	500	20	50	<10	20,000	300	200
NP261C	2	N	N	<10	100	15	500	N	50	<10	500	300	200
NP262C	2	N	N	N	100	20	500	10	50	<10	100	N	150
NP263C	2	N	N	N	100	<10	1,000	<10	70	<10	100	N	200
NP405C	2	N	N	N	50	<10	200	N	50	<10	30	N	200
NP406C	2	N	N	N	100	10	500	N	<50	<10	200	N	>200
NP407C	<2	N	N	N	50	<10	300	N	50	<10	150	N	200
NP409C	2	N	N	N	50	<10	150	N	70	<10	30	N	100
NP410C	3	N	N	N	50	<10	300	N	50	<10	50	N	200
NP411C	10	N	N	N	100	<10	200	N	50	<10	50	N	100
NP412C	5	N	N	N	50	<10	200	N	<50	<10	<20	N	100
NP413C	2	N	N	N	70	<10	300	N	<50	<10	30	N	150
NP414C	5	N	N	N	20	10	200	N	50	<10	5,000	N	100
NP415C	2	N	N	N	30	<10	200	N	<50	<10	50	N	>200
NP416C	2	N	N	N	70	70	500	N	<50	<10	7,000	N	200
NP417C	<2	N	N	N	100	10	500	N	<50	<10	50	N	100
NP418C	10	N	N	N	70	<10	500	N	50	<10	100	N	200
NP419C	<2	N	N	N	50	<10	300	N	70	<10	20	N	150
NP421C	<2	N	N	N	50	<10	200	N	50	<10	<20	N	100
NP422C	<2	N	N	N	20	<10	200	N	<50	<10	100	N	>200
NP423C	2	N	N	N	50	<10	200	N	100	<10	50	N	200
NP424C	<2	N	N	N	50	<10	200	N	70	<10	200	N	200
NP425C	<2	N	N	N	50	<10	200	N	70	<10	50	N	200
NP426C	10	N	N	N	30	<10	200	N	50	<10	50	N	150

Table 4.-- NOPAH CONCENTRATES--continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
NP207C	20	300	70	N	500	N	>2,000	<200
NP209C	50	200	100	N	700	N	>2,000	200
NP210C	50	300	100	N	700	N	>2,000	<200
NP211C	70	N	70	N	500	N	>2,000	N
NP212C	50	<200	100	N	700	N	>2,000	<200
NP221C	20	<200	150	N	700	N	>2,000	N
NP222C	50	200	500	N	700	20,000	>2,000	N
NP223C	N	300	150	N	700	N	>2,000	<200
NP224C	200	500	100	N	700	N	>2,000	<200
NP225C	20	200	150	N	1,000	N	>2,000	200
NP226C	50	<200	100	N	500	N	>2,000	<200
NP227C	20	<200	100	N	700	N	>2,000	200
NP228C	20	N	200	N	700	N	>2,000	300
NP229C	50	<200	150	N	1,000	N	>2,000	200
NP230C	50	<200	150	N	1,000	N	>2,000	<200
NP231C	30	N	100	N	700	N	>2,000	<200
NP232C	50	N	200	N	1,000	N	>2,000	300
NP233C	50	<200	200	N	1,000	N	>2,000	300
NP234C	50	200	200	N	1,000	N	>2,000	<200
NP235C	N	700	100	N	1,000	N	>2,000	<200
NP236C	30	700	100	N	1,000	N	>2,000	<200
NP260C	50	<200	2,000	N	1,000	5,000	>2,000	<200
NP261C	30	<200	300	N	1,000	<500	>2,000	N
NP262C	50	N	200	N	700	N	>2,000	<200
NP263C	30	300	200	N	700	N	>2,000	<200
NP405C	N	N	150	N	1,000	N	>2,000	200
NP406C	20	N	150	N	1,000	N	>2,000	<200
NP407C	N	700	150	N	700	N	>2,000	<200
NP409C	N	2,000	70	N	500	N	>2,000	<200
NP410C	20	500	100	N	1,000	N	>2,000	<200
NP411C	N	<200	100	N	700	N	>2,000	<200
NP412C	<20	N	100	N	700	N	>2,000	200
NP413C	<20	200	100	N	500	N	>2,000	<200
NP414C	30	2,000	150	N	500	500	>2,000	<200
NP415C	<20	200	100	N	2,000	N	>2,000	<200
NP416C	N	<200	200	N	1,000	<500	>2,000	200
NP417C	N	500	150	N	1,000	N	>2,000	<200
NP418C	20	<200	150	N	1,000	N	>2,000	<200
NP419C	20	<200	200	N	1,000	N	>2,000	<200
NP421C	70	200	150	N	500	N	>2,000	<200
NP422C	N	<200	100	N	700	N	>2,000	200
NP423C	30	N	150	N	500	N	>2,000	200
NP424C	<20	N	200	N	700	N	>2,000	300
NP425C	70	N	150	N	500	N	>2,000	N
NP426C	N	<200	100	N	500	N	>2,000	<200

Table 4.-- NOPAH CONCENTRATES--continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
NP427C	35 54 15	116 3 10	1.0	1.00	2.0	>2.0	500	N	N	N	70	100
NP428C	35 54 0	116 5 15	1.5	1.50	5.0	>2.0	500	N	N	N	70	10,000
NP429C	35 56 55	116 6 1	1.0	.50	5.0	>2.0	300	N	N	N	70	>10,000
NP430C	35 59 10	116 5 25	1.0	.70	2.0	>2.0	500	N	N	N	100	>10,000
NP450C	36 5 44	116 6 58	1.5	1.00	5.0	>2.0	500	N	N	N	70	2,000
NP451C	36 5 40	116 6 22	1.5	1.00	2.0	>2.0	500	N	<500	N	50	>10,000
NP452C	36 0 5	116 1 35	1.5	.70	2.0	>2.0	500	N	N	N	150	1,000
NP453C	36 0 10	116 1 50	2.0	1.00	3.0	>2.0	500	N	1,000	N	20	1,500
NP454C	35 59 45	116 1 45	2.0	1.00	2.0	>2.0	500	N	700	N	30	500
NP456C	35 56 13	116 5 0	1.5	.70	7.0	>2.0	500	N	N	N	100	>10,000
NP457C	35 57 45	116 6 10	1.5	.50	1.0	>2.0	100	N	N	N	70	>10,000

Table 4.-- NOPAH CONCENTRATES--continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sc-ppm s
NP427C	<2	N	N	N	50	<10	200	N	70	<10	70	N	200
NP428C	2	N	N	N	50	<10	500	N	70	<10	200	N	100
NP429C	3	N	N	N	200	10	150	N	<50	<10	30	N	150
NP430C	2	N	N	N	150	<10	300	10	70	<10	20	N	100
NP450C	5	N	N	N	100	10	300	N	50	<10	100	N	150
NP451C	2	N	N	N	50	<10	150	N	50	<10	1,000	N	150
NP452C	<2	N	N	N	50	<10	150	N	<50	<10	150	N	200
NP453C	2	N	N	N	50	<10	150	10	50	<10	1,000	N	200
NP454C	<2	N	N	N	70	<10	200	100	70	<10	7,000	N	200
NP456C	3	N	N	N	50	20	150	N	50	<10	500	N	100
NP457C	<2	N	N	20	200	50	70	N	100	<10	100	N	150

Table 4.-- NOPAH CONCENTRATES--continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
NP427C	70	N	150	N	700	N	>2,000	200
NP428C	70	200	150	N	700	N	>2,000	200
NP429C	30	1,000	100	N	700	N	>2,000	<200
NP430C	70	1,000	100	N	500	N	>2,000	<200
NP450C	20	500	100	N	700	N	>2,000	<200
NP451C	N	N	100	N	500	N	>2,000	<200
NP452C	200	<200	100	N	700	N	>2,000	N
NP453C	100	<200	100	N	700	N	>2,000	<200
NP454C	N	N	500	N	700	N	>2,000	<200
NP456C	N	1,500	100	N	500	2,000	>2,000	<200
NP457C	N	<200	100	N	500	N	>2,000	<200

TABLE 5.--Spectrographic analyses for stream-sediment samples, Resting Spring Wilderness Area, Inyo County, California.

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
RS480SD	36 0 41	116 14 14	5.0	2.0	5.0	.50	1,000	N	N	N	50	1,000
RS481SD	36 0 30	116 14 0	3.0	1.5	5.0	.30	700	N	N	N	50	700
RS482SD	36 0 10	116 14 14	7.0	3.0	7.0	.70	1,000	N	N	N	50	1,500
RS483SD	36 0 20	116 13 10	7.0	3.0	7.0	.50	1,000	N	N	N	100	1,000
RS264SD	36 9 53	116 10 35	2.0	5.0	15.0	.10	700	N	N	N	70	500
RS265SD	36 10 8	116 10 27	1.5	5.0	15.0	.07	700	N	N	N	70	500
RS266SD	36 8 11	116 10 54	3.0	3.0	10.0	.20	700	N	N	N	50	500
RS267SD	36 8 49	116 10 27	3.0	2.0	7.0	.20	1,000	N	N	N	50	500
RS451SD	36 6 55	116 15 0	1.5	1.5	3.0	.20	1,000	N	N	N	50	500
RS452SD	36 16 6	116 12 54	5.0	2.0	5.0	.50	1,500	N	N	N	50	1,000
RS453SD	36 15 48	116 13 30	5.0	2.0	3.0	.50	1,000	N	N	N	50	700
RS454SD	36 15 53	116 13 42	7.0	2.0	5.0	.70	1,000	N	N	N	50	1,000
RS150SD	36 16 4	116 13 36	5.0	2.0	1.0	.50	1,000	N	N	N	70	700
RS151SD	36 15 32	116 13 36	2.0	1.5	1.5	.50	700	N	N	N	50	700
RS017ST	36 2 18	116 14 52	3.0	3.0	20.0	.70	700	N	N	N	50	700
RS018ST	36 2 11	116 15 23	5.0	3.0	>20.0	1.00	1,000	N	N	N	100	1,000
RS019ST	36 1 58	116 16 6	3.0	2.0	10.0	.70	500	N	N	N	50	700
RS020ST	36 1 29	116 16 30	5.0	3.0	15.0	1.00	1,000	2.0	N	N	50	1,000
RS021ST	36 6 23	116 14 36	7.0	3.0	10.0	1.00	1,000	N	N	N	70	1,500
RS022ST	36 6 33	116 15 23	5.0	3.0	10.0	1.00	700	N	N	N	70	700
RS023ST	36 6 16	116 16 3	5.0	2.0	10.0	1.00	700	N	N	N	70	700
RS024ST	36 5 55	116 17 24	3.0	3.0	10.0	1.00	700	N	N	N	50	700
RS101ST	36 3 6	116 15 10	5.0	5.0	20.0	1.00	1,500	N	N	N	70	1,000
RS102ST	36 4 21	116 16 21	7.0	2.0	10.0	1.00	1,000	N	N	N	50	1,000
RS103ST	36 7 57	116 15 7	3.0	1.5	5.0	.70	1,000	<.5	N	N	70	1,000
RS104ST	36 10 52	116 15 24	5.0	1.0	1.5	>1.00	500	N	N	N	70	700
RS105ST	36 11 58	116 16 56	3.0	5.0	20.0	.70	1,000	N	N	N	100	1,500
RS106ST	36 12 52	116 15 13	7.0	2.0	10.0	>1.00	1,500	N	N	N	100	1,500
RS107ST	36 14 48	116 16 33	5.0	1.5	2.0	>1.00	1,000	N	N	N	100	1,000
RS108ST	36 12 2	116 20 32	5.0	7.0	15.0	1.00	1,000	N	N	N	70	1,500
RS109ST	36 12 5	116 21 30	5.0	5.0	15.0	1.00	1,000	N	N	N	100	1,000
RS110ST	36 13 52	116 22 17	5.0	3.0	15.0	1.00	1,000	N	N	N	70	1,500
RS111ST	36 12 52	116 20 56	5.0	5.0	20.0	>1.00	1,500	N	N	N	100	1,500
RS112ST	36 16 37	116 14 32	7.0	7.0	20.0	1.00	1,000	<.5	N	N	100	1,500
RS113ST	36 4 9	116 13 10	7.0	5.0	20.0	1.00	1,000	N	N	N	100	1,500
RS114ST	36 6 19	116 13 12	5.0	3.0	20.0	1.00	1,000	N	N	N	70	1,500
RS115ST	36 6 17	116 13 31	7.0	3.0	15.0	>1.00	1,500	N	N	N	100	1,500
RS116ST	36 10 19	116 13 29	5.0	3.0	5.0	1.00	700	N	N	N	70	1,000
RS117ST	36 14 22	116 12 25	2.0	10.0	20.0	.20	500	N	N	N	70	700
RS118ST	36 12 51	116 12 54	7.0	2.0	2.0	1.00	1,000	N	N	N	100	1,000
RS119ST	36 10 39	116 11 5	5.0	5.0	20.0	.50	700	N	N	N	70	1,000
RS120ST	36 10 34	116 10 59	7.0	5.0	15.0	1.00	1,000	N	N	N	70	1,000
RS121ST	36 7 37	116 11 40	3.0	10.0	>20.0	.70	1,000	N	N	N	50	700
RS200ST	36 3 30	116 16 13	5.0	7.0	20.0	.70	500	N	N	N	50	700
RS201ST	36 4 47	116 15 56	3.0	>10.0	>20.0	1.00	1,000	N	N	N	70	1,000

Table 5.-- RESTING SPRINGS STREAM SEDIMENTS--continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sc-ppm s
RS480SD	1.5	N	N	5	50	20	100	N	N	10	50	N	10
RS481SD	1.5	N	N	5	50	20	50	N	<20	10	30	N	10
RS482SD	1.0	N	N	10	70	30	100	N	N	15	50	N	15
RS483SD	1.5	N	N	10	70	20	70	N	N	15	50	N	15
RS264SD	1.5	N	N	N	20	15	N	N	N	7	50	N	5
RS265SD	1.0	N	N	N	20	10	N	N	N	5	50	N	5
RS266SD	1.5	N	N	<5	50	10	70	N	N	7	50	N	7
RS267SD	2.0	N	N	5	50	20	70	N	N	10	50	N	7
RS451SD	1.5	N	N	<5	50	10	30	N	N	7	50	N	5
RS452SD	2.0	N	N	20	50	30	100	N	N	15	50	N	10
RS453SD	2.0	N	N	15	50	30	50	N	N	15	50	N	10
RS454SD	2.0	N	N	15	50	30	50	5	<20	15	50	N	15
RS150SD	1.5	N	N	15	50	30	100	N	<20	15	50	N	10
RS151SD	1.0	N	N	15	50	15	70	N	<20	10	30	N	7
RS017ST	N	N	N	15	50	10	50	N	N	10	50	N	--
RS018ST	N	N	N	10	50	10	70	N	N	10	50	N	--
RS019ST	N	N	N	15	30	10	50	N	N	10	20	N	--
RS020ST	N	N	N	10	70	10	50	N	<20	15	70	N	--
RS021ST	<5.0	N	N	10	70	15	50	N	<20	20	50	N	--
RS022ST	N	N	N	10	70	10	50	N	N	15	70	N	--
RS023ST	N	N	N	15	50	20	70	N	N	15	70	N	--
RS024ST	N	N	N	10	50	10	70	5	N	15	20	N	--
RS101ST	N	N	N	10	50	20	70	N	N	15	70	N	--
RS102ST	N	N	N	10	70	15	100	N	N	15	70	N	--
RS103ST	N	N	N	5	30	15	50	N	N	15	50	N	--
RS104ST	N	N	N	15	50	20	20	5	N	15	30	N	--
RS105ST	N	N	N	7	50	15	50	N	N	15	50	N	--
RS106ST	<5.0	N	N	15	70	30	70	N	N	20	70	N	--
RS107ST	N	N	N	10	50	20	50	<5	<20	10	20	N	--
RS108ST	N	N	N	10	70	20	100	N	N	15	70	N	--
RS109ST	N	N	N	10	70	15	70	N	N	20	70	N	--
RS110ST	<5.0	N	N	10	70	15	100	N	N	20	70	N	--
RS111ST	<5.0	N	N	10	70	15	100	N	N	15	70	N	--
RS112ST	<5.0	N	N	15	70	20	100	N	N	20	100	N	--
RS113ST	N	N	N	20	100	20	70	N	N	20	70	N	--
RS114ST	N	N	N	10	70	15	100	N	N	15	70	N	--
RS115ST	<5.0	N	N	20	100	30	100	N	<20	20	70	N	--
RS116ST	N	N	N	15	70	20	70	N	N	20	70	N	--
RS117ST	N	N	N	10	30	15	50	N	N	10	30	N	--
RS118ST	N	N	N	20	70	30	100	N	N	30	50	N	--
RS119ST	N	N	N	15	70	15	70	N	N	20	50	N	--
RS120ST	N	N	N	20	100	20	100	N	N	20	70	N	--
RS121ST	N	N	N	10	70	10	70	N	N	15	70	N	--
RS200ST	N	N	N	10	70	15	70	N	N	15	50	N	--
RS201ST	N	N	N	10	50	15	100	N	N	15	70	N	--

Table 5.-- RESTING SPRINGS STREAM SEDIMENTS--continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
RS480SD	N	500	70	N	20	N	200	N
RS481SD	N	500	50	N	20	N	200	N
RS482SD	N	700	100	N	20	N	300	N
RS483SD	N	500	100	N	50	N	300	N
RS264SD	N	300	20	N	20	N	70	N
RS265SD	N	300	15	N	15	N	50	N
RS266SD	N	500	50	N	50	N	100	N
RS267SD	N	500	50	N	30	N	200	N
RS451SD	N	200	50	N	15	N	70	N
RS452SD	N	300	70	N	30	N	150	N
RS453SD	N	300	70	N	50	N	300	N
RS454SD	N	500	70	N	30	N	200	N
RS150SD	N	300	50	N	50	N	150	N
RS151SD	N	200	50	N	50	N	150	N
RS017ST	N	500	50	N	20	N	--	N
RS018ST	N	700	70	N	30	N	--	N
RS019ST	N	500	50	N	20	N	--	N
RS020ST	N	1,000	100	N	30	N	--	N
RS021ST	N	500	150	N	50	<200	--	N
RS022ST	N	300	100	N	50	N	--	N
RS023ST	N	300	100	N	30	N	--	N
RS024ST	N	200	100	N	30	N	--	N
RS101ST	N	700	100	N	30	N	--	N
RS102ST	N	500	100	N	50	N	--	N
RS103ST	N	300	70	N	20	N	--	N
RS104ST	N	200	70	N	30	N	--	N
RS105ST	N	1,000	70	N	30	N	--	N
RS106ST	N	500	100	N	50	N	--	N
RS107ST	N	200	150	N	50	N	--	N
RS108ST	N	1,000	70	N	50	N	--	N
RS109ST	N	500	100	N	50	N	--	N
RS110ST	N	1,000	100	N	50	N	--	N
RS111ST	N	1,000	100	N	50	N	--	N
RS112ST	N	1,000	100	N	50	N	--	N
RS113ST	N	700	100	N	50	N	--	N
RS114ST	N	700	100	N	50	N	--	N
RS115ST	N	1,000	150	N	70	N	--	N
RS116ST	N	300	100	N	30	N	--	N
RS117ST	N	200	30	N	30	N	--	N
RS118ST	N	300	150	N	50	N	--	N
RS119ST	N	500	100	N	50	N	--	N
RS120ST	N	500	100	N	50	N	--	N
RS121ST	N	500	70	N	30	N	--	N
RS200ST	N	300	70	N	50	N	--	N
RS201ST	N	700	100	N	50	N	--	N

Table 5.-- RESTING SPRINGS STREAM SEDIMENTS--continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
RS202ST	36 9 34	116 15 5	10.0	2.0	3.0	>1.00	1,500	N	N	N	100	1,000
RS203ST	36 11 27	116 16 16	7.0	5.0	20.0	>1.00	1,500	N	N	N	100	1,500
RS204ST	36 12 39	116 17 9	10.0	2.0	3.0	>1.00	1,500	N	N	N	100	1,000
RS205ST	36 13 42	116 16 9	7.0	5.0	20.0	1.00	1,000	N	N	N	100	1,500
RS206ST	36 13 32	116 15 24	7.0	2.0	5.0	1.00	700	N	N	N	70	700
RS207ST	36 15 42	116 17 7	2.0	3.0	20.0	.70	700	N	N	N	70	1,000
RS208ST	36 16 33	116 16 3	7.0	2.0	7.0	>1.00	2,000	N	N	N	100	1,000
RS209ST	36 11 44	116 21 16	10.0	3.0	3.0	>1.00	1,500	N	N	N	100	1,000
RS210ST	36 12 49	116 21 50	3.0	>10.0	20.0	.50	700	N	N	N	70	700
RS211ST	36 13 39	116 21 43	10.0	2.0	1.5	>1.00	700	3.0	N	N	100	700
RS212ST	36 16 26	116 14 9	10.0	2.0	3.0	>1.00	1,000	N	N	N	100	1,000
RS213ST	36 16 5	116 14 2	3.0	5.0	20.0	1.00	700	N	N	N	70	500
RS214ST	36 4 49	116 13 2	7.0	7.0	>20.0	1.00	1,500	N	N	N	150	500
RS215ST	36 7 26	116 13 11	3.0	3.0	10.0	.50	500	N	N	N	70	500
RS216ST	36 12 21	116 13 59	3.0	5.0	15.0	.50	500	N	N	N	70	300
RS217ST	36 13 39	116 12 22	5.0	10.0	>20.0	1.00	1,000	.5	N	N	100	700
RS218ST	36 12 12	116 12 37	5.0	5.0	20.0	1.00	1,000	N	N	N	200	700
RS219ST	36 9 21	116 11 7	7.0	2.0	15.0	>1.00	1,500	N	N	N	150	1,000
RS220ST	36 8 53	116 11 0	5.0	2.0	20.0	>1.00	1,500	N	N	N	150	1,000
RS401ST	36 3 57	116 16 24	5.0	3.0	15.0	>1.00	1,000	N	N	N	100	1,000
RS402ST	36 5 34	116 15 21	7.0	7.0	20.0	>1.00	1,000	N	N	N	100	700
RS403ST	36 10 22	116 15 39	5.0	7.0	>20.0	>1.00	1,000	N	N	N	100	1,500
RS404ST	36 11 28	116 16 56	5.0	1.0	2.0	1.00	700	N	N	N	100	1,000
RS405ST	36 13 2	116 16 19	7.0	1.0	5.0	>1.00	1,500	N	N	N	150	1,000
RS406ST	36 13 52	116 15 39	5.0	1.5	3.0	>1.00	1,000	N	N	N	70	1,000
RS407ST	36 16 13	116 17 1	5.0	2.0	5.0	>1.00	1,500	N	N	N	70	1,000
RS408ST	36 12 30	116 20 37	3.0	5.0	10.0	.50	700	N	N	N	70	700
RS409ST	36 12 26	116 21 38	5.0	7.0	20.0	1.00	1,000	N	N	N	100	1,000
RS410ST	36 13 5	116 21 58	7.0	3.0	7.0	>1.00	1,000	N	N	N	70	1,000
RS411ST	36 13 21	116 21 30	5.0	7.0	20.0	1.00	1,000	N	N	N	100	2,000
RS412ST	36 15 32	116 13 46	7.0	5.0	>20.0	1.00	1,500	N	N	N	200	1,500
RS413ST	36 15 27	116 13 49	7.0	3.0	7.0	1.00	1,500	N	N	N	150	2,000
RS414ST	36 15 24	116 13 49	7.0	5.0	15.0	>1.00	1,500	<.5	N	N	150	1,500
RS415ST	36 5 16	116 13 16	5.0	>10.0	20.0	.70	1,000	N	N	N	70	700
RS416ST	36 8 46	116 13 14	7.0	3.0	10.0	1.00	1,000	N	N	N	100	1,500
RS417ST	36 8 56	116 13 14	7.0	5.0	10.0	>1.00	1,500	N	N	N	100	1,500
RS418ST	36 14 56	116 13 10	7.0	3.0	10.0	1.00	1,500	N	N	N	100	1,000
RS419ST	36 11 30	116 11 8	7.0	7.0	15.0	1.00	1,500	N	N	N	70	1,000
RS420ST	36 8 10	116 11 17	7.0	10.0	20.0	1.00	1,500	N	N	N	70	1,000

Table 5.-- RESTING SPRINGS STREAM SEDIMENTS--continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sc-ppm s
RS202ST	<5.0	N	N	20	70	20	100	N	<20	30	50	N	
RS203ST	<5.0	N	N	20	70	20	100	N	N	30	50	N	
RS204ST	<5.0	N	N	20	100	30	100	N	<20	50	30	N	
RS205ST	N	N	N	15	70	20	100	N	N	20	100	N	
RS206ST	N	N	N	20	50	20	70	N	N	20	30	N	
RS207ST	N	N	N	10	30	15	100	N	N	15	30	N	
RS208ST	N	N	N	30	100	30	100	N	<20	30	70	N	
RS209ST	N	N	N	20	200	30	150	N	<20	20	50	N	
RS210ST	N	N	N	5	30	10	50	N	N	10	50	N	
RS211ST	N	N	N	20	100	20	70	N	N	20	30	N	
RS212ST	N	N	N	20	100	50	70	N	<20	20	50	N	
RS213ST	N	N	N	7	50	10	50	N	N	10	50	N	
RS214ST	<5.0	N	N	20	100	30	150	N	<20	20	70	N	
RS215ST	N	N	N	15	50	15	70	N	N	10	20	N	
RS216ST	N	N	N	15	70	10	50	N	N	10	30	N	
RS217ST	<5.0	N	N	20	70	15	100	N	N	15	70	N	
RS218ST	<5.0	N	N	20	100	20	100	N	N	20	50	N	
RS219ST	<5.0	N	N	30	70	20	100	N	N	20	50	N	
RS220ST	N	N	N	20	100	30	100	N	<20	20	50	N	
RS401ST	<5.0	N	N	20	70	20	100	N	<20	20	30	N	
RS402ST	N	N	N	15	70	20	100	N	<20	15	50	N	
RS403ST	<5.0	N	N	15	50	15	150	N	<20	15	50	N	
RS404ST	N	N	N	20	70	20	70	N	<20	20	20	N	
RS405ST	<5.0	N	N	30	70	30	100	N	<20	20	50	N	
RS406ST	N	N	N	30	100	20	70	N	N	20	50	N	
RS407ST	N	N	N	30	70	20	70	N	N	20	30	N	
RS408ST	N	N	N	7	30	10	50	N	N	10	30	N	
RS409ST	<5.0	N	N	15	70	20	100	N	<20	20	50	N	
RS410ST	N	N	N	20	150	30	70	N	<20	20	70	N	
RS411ST	<5.0	N	N	15	70	20	200	N	N	20	70	N	
RS412ST	<5.0	N	N	20	70	20	150	N	<20	20	100	N	
RS413ST	<5.0	N	N	20	70	30	100	N	<20	30	100	N	
RS414ST	<5.0	N	N	30	100	30	100	N	<20	30	100	N	
RS415ST	N	N	N	15	50	20	150	N	N	20	100	N	
RS416ST	N	N	N	20	70	20	100	N	<20	20	70	N	
RS417ST	N	N	N	30	100	30	100	N	<20	30	100	N	
RS418ST	<5.0	N	N	30	70	20	100	N	<20	20	70	N	
RS419ST	<5.0	N	N	20	70	20	70	N	<20	20	100	N	
RS420ST	N	N	N	15	70	20	70	N	N	20	70	N	

Table 5.-- RESTING SPRINGS STREAM SEDIMENTS--continued

Sample	Sn-ppm S	Sr-ppm S	V-ppm S	W-ppm S	Y-ppm S	Zn-ppm S	Zr-ppm S	Th-ppm S
RS202ST	N	300	150	N	70	N	--	N
RS203ST	N	700	100	N	70	N	--	N
RS204ST	N	300	100	N	70	N	--	N
RS205ST	N	1,000	100	N	50	N	--	N
RS206ST	N	300	100	N	50	N	--	N
RS207ST	N	700	70	N	30	N	--	N
RS208ST	N	300	150	N	50	N	--	N
RS209ST	N	700	150	N	70	N	--	N
RS210ST	N	500	70	N	30	N	--	N
RS211ST	N	100	100	N	50	N	--	N
RS212ST	N	100	300	N	70	N	--	N
RS213ST	N	500	50	N	30	N	--	N
RS214ST	N	1,000	100	N	70	N	--	N
RS215ST	N	500	70	N	30	N	--	N
RS216ST	N	500	70	N	30	N	--	N
RS217ST	N	700	100	N	50	N	--	N
RS218ST	N	700	100	N	50	N	--	N
RS219ST	N	500	100	N	50	N	--	N
RS220ST	N	700	100	N	50	N	--	N
RS401ST	N	700	100	N	50	N	--	N
RS402ST	N	500	150	N	50	N	--	N
RS403ST	N	1,000	100	N	50	N	--	N
RS404ST	N	300	70	N	30	N	--	N
RS405ST	N	500	150	N	70	N	--	N
RS406ST	N	300	100	N	50	N	--	N
RS407ST	N	500	100	N	50	N	--	N
RS408ST	N	500	70	N	20	N	--	N
RS409ST	N	1,000	100	N	50	N	--	N
RS410ST	N	300	150	N	70	N	--	N
RS411ST	N	1,000	100	N	50	N	--	N
RS412ST	N	1,500	100	N	50	N	--	N
RS413ST	N	300	100	N	50	<200	--	N
RS414ST	N	700	150	N	70	N	--	N
RS415ST	N	500	100	N	30	N	--	N
RS416ST	N	500	100	N	70	N	--	N
RS417ST	N	300	150	N	70	N	--	N
RS418ST	N	300	100	N	100	N	--	N
RS419ST	N	500	100	N	50	N	--	N
RS420ST	N	300	150	N	50	N	--	N

TABLE 6.--Spectrographic analyses for panned-concentrates, Resting Spring Wilderness Area, Inyo County, California.

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
RS017C	36 2 18	116 14 52	2.0	2.00	15.0	2.0	1,000	N	<500	N	200	10,000
RS018C	36 2 11	116 15 23	5.0	3.00	10.0	>2.0	2,000	N	N	N	150	500
RS019C	36 1 58	116 16 6	5.0	2.00	10.0	>2.0	1,500	N	N	N	100	500
RS020C	36 1 29	116 16 30	5.0	3.00	10.0	>2.0	1,500	N	N	N	100	100
RS021C	36 6 23	116 14 36	7.0	1.50	1.5	>2.0	700	N	N	N	150	>10,000
RS022C	36 6 33	116 15 23	2.0	2.00	10.0	>2.0	500	N	N	N	100	>10,000
RS023C	36 6 16	116 16 3	7.0	2.00	2.0	>2.0	700	N	N	N	150	500
RS024C	36 5 55	116 17 24	5.0	2.00	3.0	>2.0	1,000	N	N	N	150	300
RS101C	36 3 6	116 15 10	5.0	3.00	15.0	>2.0	700	N	N	N	150	1,500
RS102C	36 4 21	116 16 21	5.0	1.50	2.0	>2.0	1,000	N	N	N	200	1,500
RS103C	36 7 57	116 15 7	1.5	.70	1.5	>2.0	300	N	N	N	100	>10,000
RS104C	36 10 52	116 15 24	7.0	.70	1.0	2.0	700	N	N	N	300	2,000
RS105C	36 11 58	116 16 56	5.0	2.00	10.0	>2.0	1,500	N	N	N	100	>10,000
RS106C	36 12 52	116 15 13	5.0	1.00	3.0	>2.0	1,000	N	N	N	100	>10,000
RS107C	36 14 48	116 16 33	5.0	1.00	1.5	>2.0	700	N	N	N	200	>10,000
RS108C	36 12 2	116 20 32	7.0	2.00	7.0	>2.0	2,000	N	N	N	200	500
RS109C	36 12 5	116 21 30	5.0	1.50	7.0	>2.0	1,500	N	N	N	100	>10,000
RS110C	36 13 52	116 22 17	7.0	3.00	10.0	>2.0	3,000	N	N	N	70	500
RS111C	36 12 52	116 20 56	5.0	2.00	10.0	>2.0	1,500	N	N	N	150	10,000
RS112C	36 16 37	116 14 32	3.0	.50	1.5	>2.0	500	N	N	N	150	10,000
RS113C	36 4 9	116 13 10	5.0	5.00	15.0	2.0	700	N	<500	N	150	300
RS114C	36 6 19	116 13 12	2.0	.30	1.0	>2.0	150	N	N	N	70	>10,000
RS115C	36 6 17	116 13 31	5.0	.70	1.5	>2.0	500	N	N	N	100	>10,000
RS116C	36 10 19	116 13 29	3.0	3.00	7.0	>2.0	1,000	N	N	N	100	>10,000
RS117C	36 14 22	116 12 25	3.0	5.00	7.0	>2.0	1,000	N	N	N	100	3,000
RS118C	36 12 51	116 12 54	5.0	10.00	5.0	2.0	2,000	N	N	N	150	3,000
RS119C	36 10 59	116 11 5	5.0	5.00	5.0	>2.0	1,000	N	N	N	100	500
RS120C	36 10 34	116 10 59	3.0	1.50	15.0	>2.0	500	7	N	N	100	700
RS121C	36 7 37	116 11 40	2.0	3.00	10.0	>2.0	500	N	N	N	100	10,000
RS200C	36 3 30	116 16 13	2.0	2.00	7.0	>2.0	700	N	N	N	100	10,000
RS201C	36 4 47	116 15 56	5.0	3.00	7.0	>2.0	700	N	N	N	100	700
RS202C	36 9 34	116 15 5	2.0	3.00	5.0	>2.0	700	N	N	N	100	700
RS203C	36 11 27	116 16 16	1.5	3.00	5.0	>2.0	200	N	N	N	150	>10,000
RS204C	36 12 39	116 17 9	3.0	5.00	7.0	2.0	700	N	N	N	100	1,000
RS205C	36 13 42	116 16 9	1.0	1.00	.7	>2.0	150	N	N	N	100	>10,000
RS206C	36 13 32	116 15 24	1.0	1.00	3.0	>2.0	300	N	N	N	100	>10,000
RS207C	36 15 42	116 17 7	2.0	1.50	2.0	>2.0	500	N	N	N	150	5,000
RS208C	36 16 33	116 16 3	2.0	1.50	3.0	>2.0	500	100	N	N	150	2,000
RS209C	36 11 44	116 21 16	3.0	2.00	5.0	2.0	500	N	N	N	70	2,000
RS210C	36 12 49	116 21 50	2.0	2.00	5.0	1.5	300	N	N	N	100	>10,000
RS211C	36 13 39	116 21 43	3.0	3.00	3.0	>2.0	700	N	N	N	70	10,000
RS212C	36 16 26	116 14 9	5.0	2.00	1.5	2.0	1,000	N	N	N	150	500
RS213C	36 16 5	116 14 2	2.0	2.00	10.0	>2.0	700	N	N	N	150	10,000
RS214C	36 4 49	116 13 2	3.0	7.00	15.0	1.0	700	N	N	N	150	10,000
RS215C	36 7 26	116 13 11	1.0	1.00	1.5	>2.0	200	N	N	N	100	>10,000

Table 6.-- RESTING SPRINGS CONCENTRATES--continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sc-ppm s
RS017C	2	N	N	10	150	100	500	10	70	20	2,000	N	20
RS018C	2	N	N	30	200	50	1,000	10	150	50	200	N	50
RS019C	3	N	N	30	200	50	1,500	15	100	30	300	N	200
RS020C	3	N	N	20	150	30	1,500	10	70	10	50	N	200
RS021C	3	N	N	30	100	50	200	N	70	15	700	N	50
RS022C	2	N	N	10	70	50	200	N	70	<10	1,000	N	100
RS023C	2	N	N	15	100	70	200	N	100	15	200	N	20
RS024C	2	N	N	10	150	70	300	N	100	15	50	N	20
RS101C	2	N	N	10	100	30	300	10	70	15	700	N	50
RS102C	2	N	N	15	150	20	1,500	N	100	15	50	N	100
RS103C	5	N	N	<10	150	30	200	N	50	<10	30	N	200
RS104C	3	N	N	30	200	30	100	N	50	15	50	N	30
RS105C	5	N	N	20	100	30	1,500	<10	70	10	150	N	100
RS106C	3	N	N	10	100	30	500	N	100	10	30	N	>200
RS107C	3	N	N	<10	100	30	500	N	<50	10	30	N	150
RS108C	50	N	N	30	150	50	1,000	<10	70	30	100	N	150
RS109C	2	N	N	20	150	50	1,000	N	70	20	70	N	100
RS110C	2	N	N	20	300	30	1,500	<10	70	30	150	N	200
RS111C	3	N	N	20	150	30	1,000	<10	70	20	50	N	200
RS112C	3	N	N	<10	100	20	1,000	N	<50	20	20	N	200
RS113C	2	N	N	20	50	30	200	N	50	10	100	N	15
RS114C	3	N	N	N	50	15	150	N	50	<10	50	N	100
RS115C	2	N	N	10	100	30	300	N	50	10	50	N	100
RS116C	2	N	N	10	50	20	200	N	70	<10	20	N	70
RS117C	2	N	N	10	50	15	700	N	50	<10	30	N	100
RS118C	2	N	N	30	200	20	500	<10	50	20	150	N	70
RS119C	<2	N	N	10	50	15	500	N	100	<10	30	N	100
RS120C	<2	N	N	10	100	30	200	N	100	50	200	N	--
RS121C	10	N	N	N	70	<10	1,500	<10	70	<10	150	N	100
RS200C	3	N	N	N	100	20	300	N	70	<10	200	N	100
RS201C	5	N	N	10	50	15	300	N	70	<10	20	N	100
RS202C	2	N	N	10	100	15	150	N	70	<10	30	N	70
RS203C	15	N	N	N	70	<10	100	N	50	<10	50	N	150
RS204C	2	N	N	N	50	<10	300	N	70	<10	30	N	70
RS205C	2	N	N	N	50	N	50	N	70	<10	N	N	15
RS206C	5	N	N	N	50	<10	100	N	<50	<10	150	N	200
RS207C	3	N	N	N	100	<10	200	N	50	<10	70	N	150
RS208C	3	N	N	10	100	<10	200	N	50	<10	30	N	150
RS209C	2	N	N	10	50	<10	200	N	50	<10	30	N	50
RS210C	2	N	N	<10	20	20	200	N	<50	<10	<20	N	50
RS211C	3	N	N	N	70	<10	500	N	50	<10	20	N	200
RS212C	2	N	N	<10	70	10	200	N	<50	<10	20	N	70
RS213C	3	N	N	10	100	20	200	N	50	<10	50	N	100
RS214C	<2	N	N	10	70	20	50	N	<50	20	150	N	--
RS215C	2	N	N	N	50	<10	100	N	70	<10	<20	N	100

Table 6.-- RESTING SPRINGS CONCENTRATES--continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
RS017C	30	500	200	N	200	10,000	>2,000	N
RS018C	50	500	150	N	500	N	>2,000	<200
RS019C	30	500	150	N	1,000	N	>2,000	<200
RS020C	50	300	150	N	1,000	N	>2,000	<200
RS021C	N	200	150	N	300	N	>2,000	N
RS022C	N	500	150	N	700	N	>2,000	N
RS023C	N	200	100	N	200	N	>2,000	N
RS024C	20	300	100	N	300	N	>2,000	N
RS101C	30	500	100	N	300	1,500	>2,000	N
RS102C	<20	200	150	N	700	N	>2,000	<200
RS103C	N	500	100	N	1,000	N	>2,000	<200
RS104C	N	300	100	N	300	N	>2,000	<200
RS105C	50	300	150	N	700	N	>2,000	<200
RS106C	20	500	150	N	1,000	N	>2,000	200
RS107C	N	300	150	N	1,000	N	>2,000	N
RS108C	30	500	150	N	700	N	>2,000	<200
RS109C	50	1,000	100	N	500	N	>2,000	<200
RS110C	50	300	100	N	700	N	>2,000	200
RS111C	30	500	100	N	500	N	>2,000	200
RS112C	N	<200	100	N	1,500	N	>2,000	<200
RS113C	N	500	70	N	200	N	>2,000	N
RS114C	N	700	70	N	700	N	>2,000	N
RS115C	N	500	100	N	1,500	N	>2,000	N
RS116C	200	300	100	N	500	N	>2,000	N
RS117C	70	500	150	N	700	N	>2,000	<200
RS118C	<20	500	150	N	500	N	>2,000	<200
RS119C	<20	300	150	N	500	N	>2,000	<200
RS120C	N	200	150	N	300	N	>2,000	<200
RS121C	30	300	100	N	700	N	>2,000	<200
RS200C	30	700	100	N	700	N	>2,000	N
RS201C	N	500	100	N	500	1,500	>2,000	<200
RS202C	N	500	100	N	500	N	>2,000	<200
RS203C	N	500	100	N	1,000	N	>2,000	N
RS204C	20	300	70	N	500	N	>2,000	N
RS205C	N	700	50	N	100	N	>2,000	N
RS206C	N	1,000	70	N	1,500	N	>2,000	<200
RS207C	N	200	100	N	1,000	N	>2,000	<200
RS208C	N	300	100	N	1,000	N	>2,000	N
RS209C	N	500	70	N	200	N	>2,000	N
RS210C	N	3,000	50	N	200	N	>2,000	N
RS211C	70	500	100	N	1,000	N	>2,000	<200
RS212C	N	300	70	N	500	N	>2,000	N
RS213C	N	1,000	50	N	700	N	>2,000	<200
RS214C	N	N	50	N	150	N	>2,000	N
RS215C	N	300	50	N	500	N	>2,000	N

Table 6.-- RESTING SPRINGS CONCENTRATES--continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
RS216C	36 12 21	116 13 59	1.5	3.00	15.0	.7	500	N	N	N	100	500
RS217C	36 13 39	116 12 22	2.0	1.50	10.0	1.0	500	N	N	N	50	500
RS218C	36 12 12	116 12 37	5.0	2.00	5.0	>2.0	1,000	N	N	N	100	10,000
RS219C	36 9 21	116 11 7	3.0	1.50	5.0	>2.0	700	N	N	N	70	200
RS220C	36 8 53	116 11 0	2.0	5.00	10.0	2.0	200	N	N	N	50	100
RS401C	36 3 57	116 16 24	1.0	.20	2.0	>2.0	200	N	N	N	100	>10,000
RS402C	36 5 34	116 15 21	1.5	1.00	7.0	>2.0	200	N	N	N	100	>10,000
RS403C	36 10 22	116 15 39	2.0	.50	2.0	>2.0	200	N	N	N	150	>10,000
RS404C	36 11 28	116 16 56	2.0	1.00	7.0	>2.0	700	N	N	N	70	>10,000
RS405C	36 13 2	116 16 19	5.0	1.00	5.0	>2.0	1,000	N	N	N	150	10,000
RS406C	36 13 52	116 15 39	2.0	.15	1.5	>2.0	300	N	N	N	70	10,000
RS407C	36 16 13	116 17 1	2.0	.50	1.5	>2.0	500	N	N	N	100	10,000
RS408C	36 12 30	116 20 37	5.0	2.00	7.0	2.0	1,500	N	N	N	50	1,000
RS409C	36 12 26	116 21 38	7.0	2.00	5.0	>2.0	2,000	N	N	N	100	5,000
RS410C	36 13 5	116 21 58	5.0	2.00	7.0	>2.0	1,500	N	N	N	70	5,000
RS411C	36 13 21	116 21 30	5.0	1.50	5.0	>2.0	1,000	N	N	N	100	>10,000
RS412C	36 15 32	116 13 46	2.0	.30	5.0	>2.0	700	N	N	N	200	>10,000
RS413C	36 15 27	116 13 49	2.0	.70	7.0	>2.0	700	N	N	N	200	1,000
RS414C	36 15 24	116 13 49	2.0	.30	2.0	>2.0	500	N	N	N	100	10,000
RS415C	36 5 16	116 13 16	3.0	2.00	15.0	>2.0	1,000	N	N	N	100	500
RS416C	36 8 46	116 13 14	1.0	1.00	3.0	>2.0	300	N	N	N	100	5,000
RS417C	36 8 56	116 13 14	3.0	.70	2.0	>2.0	500	N	N	N	150	7,000
RS418C	36 14 56	116 13 10	2.0	.50	7.0	>2.0	700	N	N	N	150	>10,000
RS419C	36 11 30	116 11 8	5.0	1.50	7.0	>2.0	1,000	N	N	N	100	200
RS420C	36 8 10	116 11 17	2.0	3.00	10.0	>2.0	500	N	N	N	70	70
RS451C	36 6 55	116 15 0	1.0	.70	2.0	>2.0	200	10	N	N	70	>10,000
RS480C	36 0 41	116 14 14	1.5	2.00	7.0	>2.0	500	N	N	N	70	200
RS481C	36 0 30	116 14 0	1.0	2.00	7.0	>2.0	500	N	N	N	50	200
RS482C	36 0 10	116 14 14	1.0	1.00	5.0	>2.0	300	N	N	N	50	200
RS483C	36 0 20	116 13 10	1.5	1.00	10.0	>2.0	500	N	N	N	50	10,000

Table 6.-- RESTING SPRINGS CONCENTRATES--continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sc-ppm s
RS216C	N	N	N	N	20	<10	70	N	<50	<10	<20	N	N
RS217C	2	N	N	N	30	<10	100	N	<50	<10	150	N	50
RS218C	2	N	N	N	100	10	1,000	N	70	<10	150	N	200
RS219C	2	N	N	N	100	15	500	<10	70	<10	50	N	200
RS220C	<2	N	N	N	30	<10	100	N	50	<10	20	N	50
RS401C	5	N	N	N	100	<10	300	N	<50	<10	20	N	200
RS402C	5	N	N	N	50	10	200	N	70	<10	300	N	100
RS403C	5	N	N	N	100	10	500	<10	70	<10	50	N	200
RS404C	<2	N	N	N	50	<10	300	<10	50	<10	20	N	100
RS405C	3	N	N	N	100	<10	500	N	<50	<10	50	N	200
RS406C	5	N	N	N	50	10	200	N	N	<10	70	N	200
RS407C	5	N	N	N	100	10	300	N	N	<10	70	N	200
RS408C	2	N	N	N	100	15	500	N	50	<10	20	N	50
RS409C	3	N	N	20	200	20	1,500	<10	50	<10	150	N	200
RS410C	3	N	N	N	100	20	1,000	N	50	<10	30	N	200
RS411C	5	N	N	N	100	15	1,000	N	<50	<10	50	N	200
RS412C	2	N	N	N	70	15	300	N	<50	<10	20	N	150
RS413C	5	N	N	N	100	20	300	N	<50	<10	150	N	150
RS414C	3	N	N	N	50	10	200	N	<50	<10	100	N	200
RS415C	2	N	N	N	100	30	500	N	50	<10	1,000	N	100
RS416C	3	N	N	N	100	<10	200	N	50	<10	100	N	200
RS417C	3	N	N	N	100	20	300	N	<50	<10	70	N	150
RS418C	5	N	N	N	100	30	300	N	<50	<10	200	N	200
RS419C	3	N	N	<10	100	<10	500	N	50	<10	100	N	200
RS420C	3	N	N	N	70	<10	200	N	70	<10	50	N	70
RS451C	2	N	N	N	100	<10	150	N	70	<10	20,000	N	150
RS480C	2	N	N	N	30	<10	150	N	50	<10	150	N	100
RS481C	5	N	N	N	50	<10	200	N	50	<10	150	N	>200
RS482C	3	N	N	N	30	<10	150	N	50	<10	<20	N	100
RS483C	3	N	N	N	50	<10	300	N	50	<10	200	N	200

Table 6.-- RESTING SPRINGS CONCENTRATES--continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s
RS216C	N	300	30	N	70	N	>2,000	<200
RS217C	N	500	50	N	100	N	>2,000	N
RS218C	100	500	150	N	700	N	>2,000	<200
RS219C	50	<200	150	N	700	N	>2,000	<200
RS220C	N	200	70	N	200	N	>2,000	N
RS401C	N	500	100	N	1,000	N	>2,000	<200
RS402C	N	1,000	100	N	500	N	>2,000	<200
RS403C	N	1,500	100	N	500	N	>2,000	N
RS404C	20	1,000	100	N	500	N	>2,000	N
RS405C	30	500	150	N	1,000	N	>2,000	<200
RS406C	N	200	100	N	1,000	N	>2,000	N
RS407C	N	300	150	N	1,000	N	>2,000	N
RS408C	N	500	100	N	300	N	>2,000	N
RS409C	30	300	150	N	1,000	N	>2,000	200
RS410C	30	1,000	100	N	500	N	>2,000	<200
RS411C	30	1,000	100	N	700	N	>2,000	N
RS412C	N	5,000	100	N	500	N	>2,000	N
RS413C	50	1,000	70	N	1,000	N	>2,000	N
RS414C	N	300	70	N	700	N	>2,000	N
RS415C	30	500	100	N	700	N	>2,000	<200
RS416C	N	200	100	N	1,000	N	>2,000	<200
RS417C	N	500	100	N	700	N	>2,000	N
RS418C	N	1,000	70	N	1,000	N	>2,000	N
RS419C	20	200	100	N	700	N	>2,000	<200
RS420C	30	200	100	N	500	N	>2,000	<200
RS451C	N	200	150	N	700	500	>2,000	300
RS480C	30	N	100	N	500	N	>2,000	<200
RS481C	20	N	150	N	1,000	N	>2,000	200
RS482C	20	<200	100	N	500	N	>2,000	<200
RS483C	30	<200	100	N	700	N	>2,000	<200

TABLE 7.--Spectrographic and atomic-absorption analyses for rock samples, Nopah Mountain and Resting Spring Wilderness Areas, Inyo County, California.

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-ppm s	Mg-ppm s	Ca-ppm s	Ti-ppm s	Mn-ppm s	Ag-ppm s	As-ppm s	Au-ppm s	B-ppm s	Ba-ppm s
RS450R	36 7 5	116 14 58	>20.0	.30	.05	.050	50	5.0	300	N	200	<20
NP455R	35 59 40	116 2 5	5.0	1.00	>20.00	.200	300	N	300	N	150	100
NP422R	36 0 29	116 2 10	.7	.02	.07	.010	20	<.5	N	N	20	100
NP440R	35 59 43	116 1 35	1.0	2.00	>20.00	.070	150	<.5	<200	N	20	50
NP441R	35 59 45	116 1 23	.5	1.00	7.00	.010	30	<.5	300	N	10	N
NP442R	35 59 45	116 1 40	3.0	2.00	>20.00	.020	100	N	700	N	10	70
NP443R	36 7 37	116 10 0	1.0	.03	.50	.050	200	<.5	N	N	15	200
NP444R	36 7 40	116 9 2	15.0	3.00	5.00	.020	100	100.0	1,000	N	70	N
NP445R	36 5 56	116 8 40	7.0	.20	.50	.015	50	500.0	700	N	100	50
NP446R	36 14 21	116 22 17	5.0	3.00	7.00	.300	700	.5	N	N	300	700

Table 7.-- RESTING SPRINGS-NOPAH ROCK DATA--continued

Sample	Be-ppm s	Bi-ppm s	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sb-ppm s	Sc-ppm s
RS450R	N	N	100	N	N	500	N	<5	N	N	10,000	100	N
NP455R	1.5	N	N	N	20	20	N	30	N	5	300	N	N
NP422R	<1.0	N	N	N	<10	5	N	N	N	5	N	N	--
NP440R	N	N	N	N	10	5	N	70	N	<5	20	N	--
NP441R	1.0	N	N	N	10	5	N	20	N	N	20	100	--
NP442R	1.0	N	N	N	10	5	N	70	N	<5	N	300	--
NP443R	N	N	N	N	10	5	N	N	N	<5	N	N	--
NP444R	3.0	N	100	N	150	1,000	N	200	N	10	>20,000	150	--
NP445R	1.5	N	30	N	15	2,000	N	10	N	30	>20,000	5,000	--
NP446R	2.0	N	N	15	50	50	20	N	N	20	200	N	--

Table 7.-- RESTING SPRINGS-NOPAH ROCK DATA--continued

Sample	Sn-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Th-ppm s	Au-ppm aa	Zn-ppm aa	Cd-ppm aa	Bi-ppm aa	Sb-ppm aa
RS450R	N	N	<10	N	N	>10,000	N	N	N	--	--	--	75
NP455R	N	200	30	N	15	N	50	N	N	--	--	--	44
NP422R	N	N	20	N	N	N	10	N	N	20	N	N	2
NP440R	N	200	30	N	<10	N	20	N	.15	40	N	N	50
NP441R	N	N	20	N	N	N	<10	N	.10	40	.2	N	96
NP442R	N	300	15	N	<10	N	10	N	.15	25	N	N	260
NP443R	N	N	10	N	N	N	100	N	N	<5	N	N	2
NP444R	N	200	150	N	20	>10,000	<10	N	.05	>2,000	>100.0	N	260
NP445R	N	500	2,000	N	N	3,000	10	N	<.05	570	40.0	N	>1,000
NP446R	N	1,000	70	N	20	<200	100	N	<.05	75	.3	N	12

Table 7.-- RESTING SPRINGS-NOPAH ROCK DATA--continued

Sample	As-ppm aa	Li-ppm aa	U-ppm
RS450R	350	--	--
NP455R	400	--	--
NP422R	55	--	--
NP440R	250	--	--
NP441R	490	--	--
NP442R	1,100	--	--
NP443R	45	--	--
NP444R	>2,000	--	--
NP445R	1,400	--	--
NP446R	20	120	.1

DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

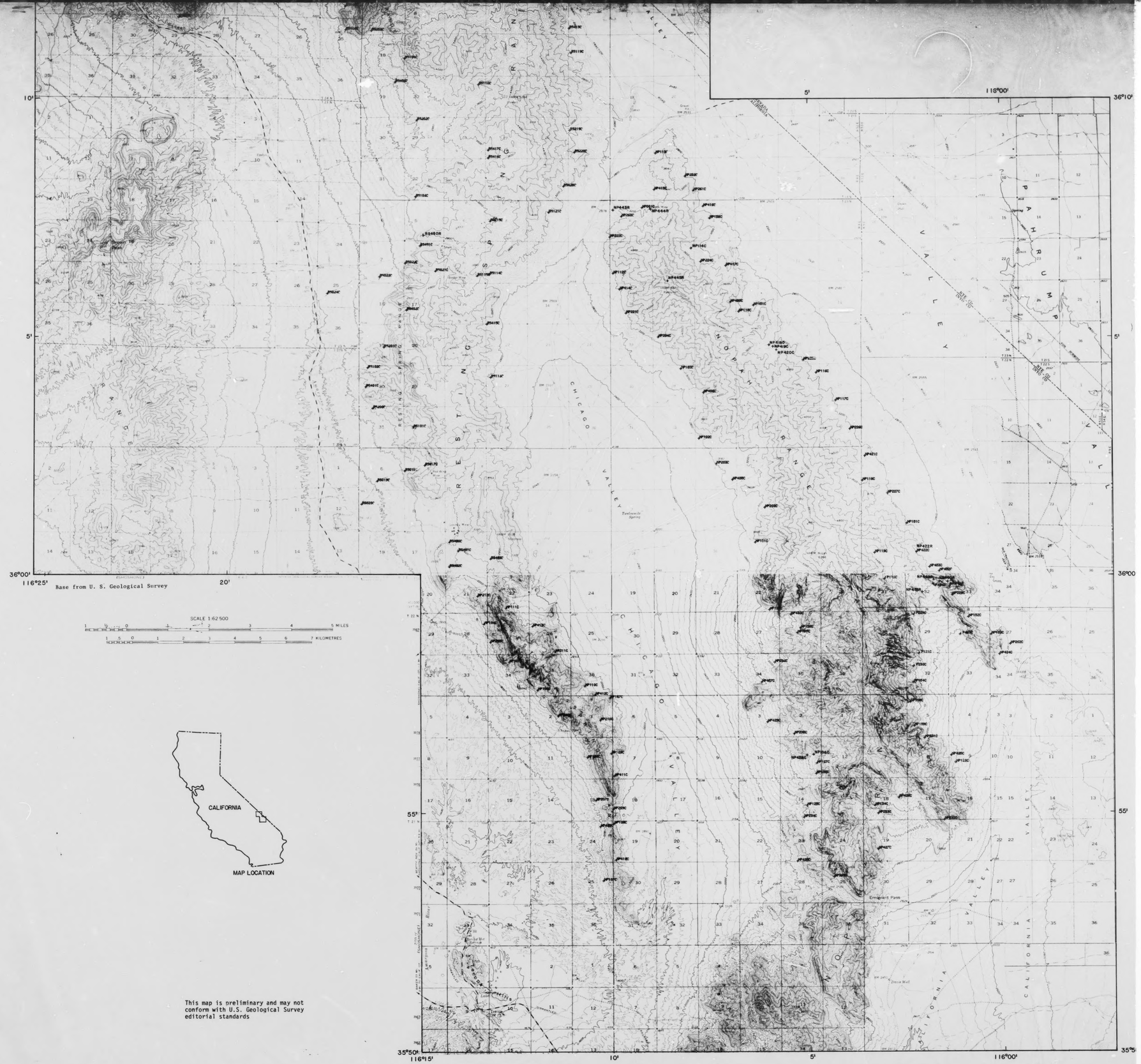
OPEN-FILE REPORT 84-676
PLATE 1 OF 1

116°25'
36°20'
20'
15'
10'
5'
116°00'
36°15'
36°10'
36°05'
36°00'

Base from U. S. Geological Survey

SCALE 1:62 500

1 ½ 0 1 2 3 4 5 MILES
1 5 0 1 2 3 4 5 6 7 KILOMETRES



Base from U. S. Geological Survey

PLATE 1–SAMPLE LOCALITY MAP OF THE NOPAH AND RESTING SPRING WILDERNESS STUDY AREA, INYO COUNTY, CALIFORNIA

By

Marjorie S. Erickson, Cole L. Smith and David E. Detra

1984